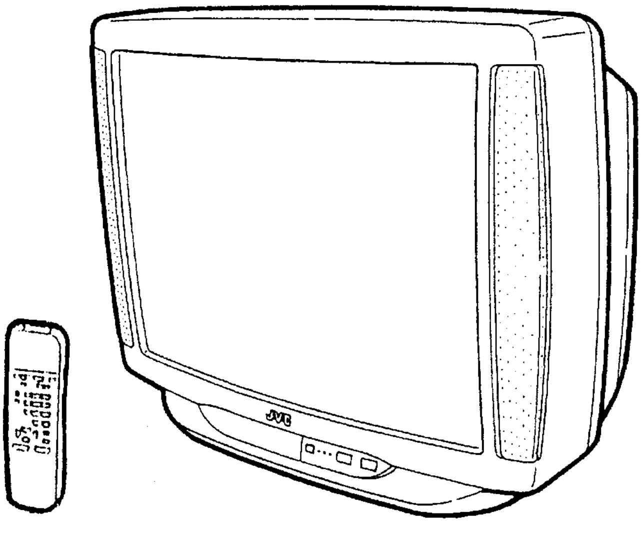
JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-G29MS
AV-G29MH

BASIC CHASSIS
KA



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No.50975
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SPECIFICATIONS

Item	Content
Dimensions (W×H×D)	73.3cm×58.3cm×49.2cm
Mass	39.9kg
Type	Colour Television
TV RF System	CCIR B / G, I, D / K, K1 / M
Colour System	PAL / SECAM / NTSC 3.58 / NTSC 4.43
Sound-multiplex System	A2 / NICAM
Teletext system	Fastext (United Kingdom system), WST (Standard system) **[AV-G29MS]**
Receiving Channels and Frequency	
VHF (VL)	46.25MHz~168.25MHz
(VH)	175.25MHz~463.25MHz
UHF	471.25MHz~863.25MHz
CATV	Cable TVs of Mid (X-Z, S1-S10) Super (S11-S20) & Hyper (S21-S41) bands receivable
Intermediate Frequency	
VIF Carrier	38.0MHz
SIF Carrier	32.5MHz (5.5MHz), 31.5MHZ (6.5MHz) 33.5MHz (4.5MHz), 32.0MHZ (6.0MHz)
Colour Sub Carrier Frequency	PAL (4.43MHz), SECAM (4.40625MHz, 4.25MHz) NTSC (3.58MHz, 4.43MHz)
Aerial Input Terminal	75Ω Unbalanced
Power Input	
Rated voltage	AC120-240V, 50 / 60Hz
Operating voltage	AC90-260V, 50 / 60Hz
Power Consumption	185W (Max.) / 120W (Avg.)
Picture Tube	29" (73cm), Visible size:68cm (measured Diagonally)
High Voltage	31kV ± 1kV (at zero beam current)
Speaker	2cm Round type ×2 / 10cm Round type ×2
Audio Output	10W + 10W
S/VIDEO-1&3, VIDEO-2, Input	
Video	1Vp-p, 75Ω (RCA Pin jack)
Audio	500mV rms (-4dBs),High Impedance (RCA Pin jack)
S-Video	Y:1Vp-p 75Ω / C:0.3Vp-p (Burst signal), 75Ω
Line Output	
Video	1Vp-p, 75Ω (RCA Pin jack)
Audio	500mV rms (-4dBs), Low Impedance (RCA pin jack)
Headphone Terminal	Stereo mini jack
Remote Control Unit	RM-C665 **[AV-G29MS]** (Battery size : AA(R6)×2) RM-C666 **[AV-G29MH]** (Battery size : AA(R6)×2)

Design & specification subject to change without notice.

SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes.
   For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠)on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Don't short between the LIVE side ground and ISOLATED(NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⏚) side GND and EARTH : (⊜) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.
5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B_1 POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.
9. **Isolation Check**
   (Safety for Electrical Shock Hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

(2) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

- **Alternate Check Method**

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

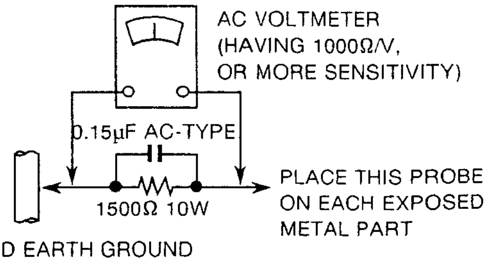

Fig.A

FEATURES

- The TELETEXT SYSTEM has a built-in Fastext / wst system : **(AV-G29MS)**
- By means of AUTO PROGRAM, the TV stations can be selected automatically and the TV channels can also be rearranged automatically.
- Built-in ECO MODE (ECONOMY, ECOLOGY)
  In accordance with the brightness in a room, the brightness and / or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Built-in A2 / NICAM stereo system.

SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Unplug the power supply cord.
2. Remove the eight screws marked Ⓐ as shown in figure.
3. Withdraw the rear cover toward you.

REMOVING THE CHASSIS

- After removing the rear cover.

1. Slightly raise the both sides of the chassis by hand and remove the two claws under the both sides of the chassis from the front cabinet.
2. Withdraw the chassis backward.
   (If necessary, take off the wire clamp, connectors etc.)

REMOVING THE AV TERMI. BOARD

1. Remove the two screws marked Ⓑ as shown in figure.
2. While raising the claw marked Ⓐ , remove the top of the AV TERMI. board slightly in the direction of arrow Ⓑ as shown in Fig. 1.
3. Pressing the claws marked Ⓐ, remove the AV TERMI. board toward you marked Ⓑ as shown in Fig. 2.

REMOVING THE CONTROL BASE

1. While pushing down the claws marked Ⓒ, remove the CONTROL BASE in the arrow direction marked Ⓓ as shown in Fig.3.
   (If necessary, take off the wire clamp, connectors etc.)

REMOVING THE SPEAKER BOX

- After removing the rear cover.

1. Remove the two screws marked Ⓒ as shown in figure.
2. Follow the same steps when removing the other hand speaker box.

Note:

- When removing the screws marked Ⓒ of the speaker box, remove the lower side screw first, and then remove the upper screw.

CHECKING THE PW BOARD

1. To check the back side of the PW Board.
   1) Pull out the chassis. (Refer to REMOVING THE CHASSIS) .
   2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

OPERATING INSTRUCTIONS

JVC

AV-G29MS

COLOUR TELEVISION

INSTRUCTIONS

Thank you for purchasing this JVC colour television.
To ensure your complete understanding, please read this manual thoroughly before operation.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

When you don't use this TV set for a long period of time, be sure to disconnect the power plug from the AC outlet.

CONNECTION *2*
PREPARATION *4*
VIEWING A TELEVISION PROGRAMME *10*
SOUND AND PICTURE *12*
OTHER FEATURES *14*
VIEWING IMAGES FROM AN EXTERNAL DEVICE *16*
VIEWING A TELETEXT PROGRAMME *16*
TELETEXT FUNCTIONS *17*
TROUBLESHOOTING *19*

Specifications

TV RF system	: B, G, I, D, K, K1, M
Colour system	: PAL, SECAM, NTSC 3.58, 4.43 MHz
Channel and frequencies	: VHF low channel (VL): 46.25 – 168.25 MHz VHF high channel (VH): 175.25 – 463.25 MHz UHF channel (U): 471.25 – 863.25 MHz ■ Receives cable channels in mid band (X-Z, S1-S10) super band (S11-S20) and hyper band (S21-S41)
Sound-multiplex system	: A2, NICAM
Teletext system	: Fastext (United Kingdom system), WST (Standard system)
Power input	: AC120 – 240 V, 50/60 Hz (operating AC 90 – 260 V, 50/60 Hz)
Power consumption	: Average 120 W, Maximum 185 W
Screen size (measured diagonally)	: Picture tube 73 cm Visible area 68 cm
Audio output	: Rated power output: 10 W + 10 W
Speaker	: 10 cm round × 2, 2 cm round × 2
External input/output	: • S/VIDEO-1: Video input: RCA S-video input: S-VIDEO (4-pin) Audio input: RCA × 2 • VIDEO-2: Video input: RCA Audio input: RCA × 2 • S/VIDEO-3: Video input: RCA S-video input: S-VIDEO (4-pin) Audio input: RCA × 2 • LINE OUT: Video output: RCA Audio output: RCA × 2 • Headphone jack : stereo mini jack (dia. 3.5 mm)
Dimensions (W × H × D)	: 733 mm × 583 mm × 492 mm
Weight	: 39.9 kg
Accessories	: • REMOTE CONTROL (RM-C665) × 1 • AA/R6/UM-3 Dry Cell Battery × 2 • Matching box × 1

Design and specifications subject to change without notice.

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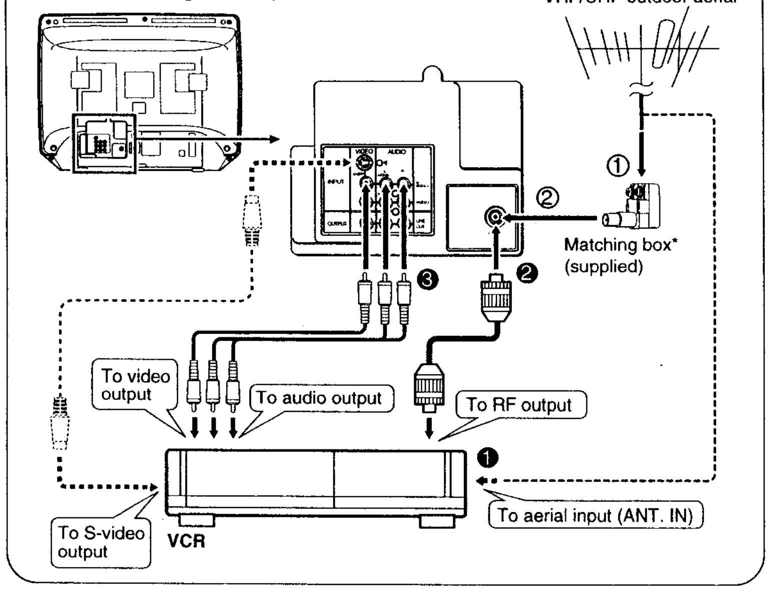
CQ40016-001-H
0795-T-AB-NV-JMT

Connecting the aerial and VCR (video cassette recorder)

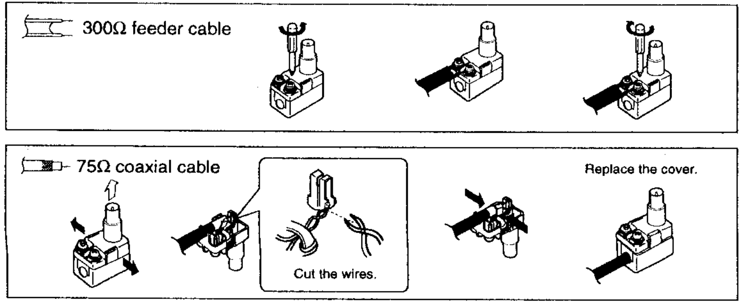
Notes:

- Refer to manuals provided with devices for further details.
- Connecting cables are not provided.
- When connecting monaural audio to the TV, use the L MONO jack.

When not connecting a VCR (video cassette recorder), proceed ① → ②.
When connecting a VCR, proceed ❶ → ❷ → ❸.

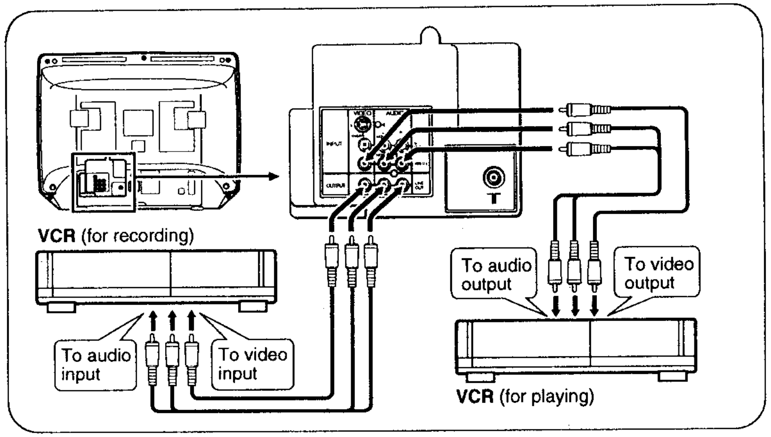

VHF/UHF outdoor aerial
①
②
Matching box*
(supplied)
❷
❸
To video output
To audio output
To RF output
❶
To aerial input (ANT. IN)
To S-video output
VCR

* How to connect to the matching box


300Ω feeder cable
75Ω coaxial cable
Cut the wires.
Replace the cover.

Connecting other external devices

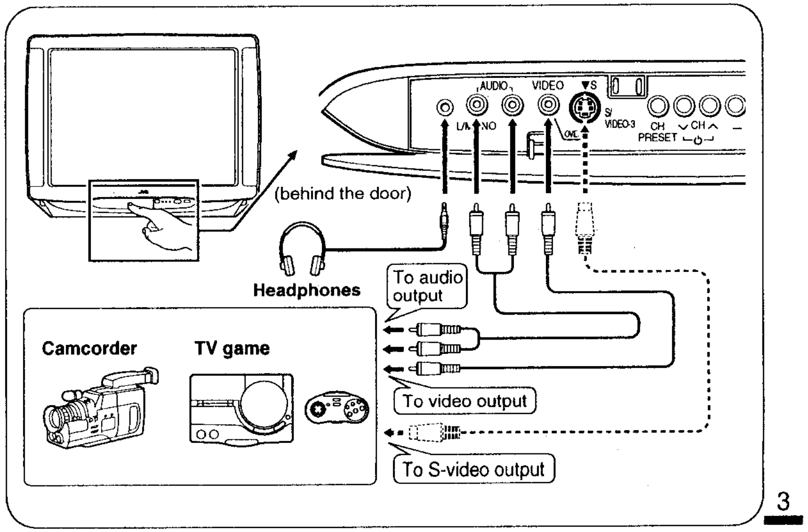
If connecting to the terminals on the rear panel


VCR (for recording)
To audio input
To video input
To audio output
To video output
VCR (for playing)

Note:

- The same sounds and pictures that you are watching on your TV are output from LINE OUT terminals.

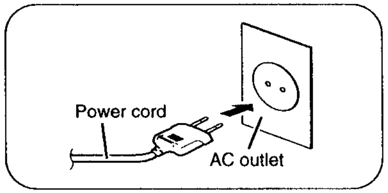
If connecting to the terminals on the front panel


AUDIO
VIDEO
S
L/MONO
S-VIDEO-3
CH PRESET
CH
(behind the door)
Headphones
To audio output
Camcorder
TV game
To video output
To S-video output

PREPARATION

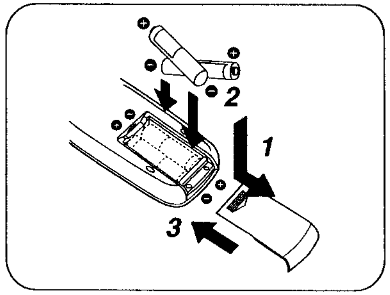
Connecting the power cord

Insert the Power plug into the AC outlet (AC 120 – 240V, 50/60 Hz (operating at 90 – 260 V, 50/60 Hz)).


Power cord
AC outlet

Inserting batteries into the remote control

Correctly insert two batteries, observing the ⊕ and ⊖ polarities, inserting the ⊖ end first.



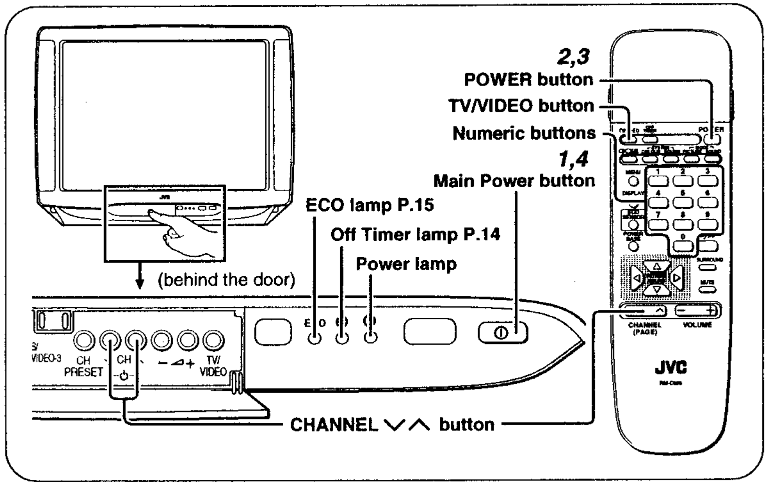
Caution:

- Follow the cautions printed on the batteries.

Notes:

- Use AA/R6/UM-3 dry cell batteries.
- Battery life is approximately six months to one year depending on frequency of use.
- If the remote control operates erratically, replace the batteries.

Turning your TV ON/OFF


2,3
POWER button
TV/VIDEO button
Numeric buttons
1,4
Main Power button
ECO lamp P.15
Off Timer lamp P.14
Power lamp
(behind the door)
CHANNEL ∨∧ button
S/VIDEO-3
CH PRESET
CH
– ◢ +
TV/VIDEO
JVC

■To turn your TV ON

1. **Press the Main Power button to turn the Main Power ON.**
   The Power lamp lights up red.
   - Your TV enters Standby mode.
2. **Press POWER to turn your TV ON.**
   The Power lamp changes to green.

Note:

- In step 2, you can turn ON your TV by pressing any of the following buttons:
  - CHANNEL ∨ ∧ button
  - Numeric buttons
  - TV/VIDEO button

■To turn your TV OFF

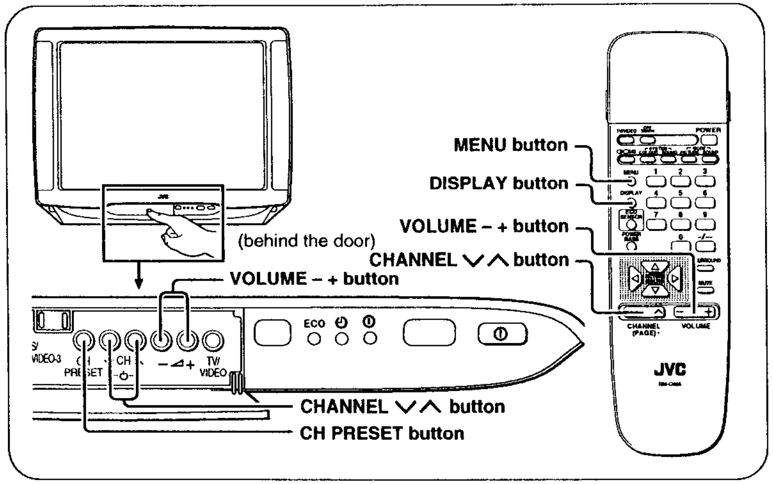
3. **Press POWER to your TV OFF.**
   The Power lamp changes to red.
   - Your TV enters Standby mode.
4. **Press Main Power to turn the Main Power OFF.**
   The Power lamp goes off.

Note:

- We recommend that you turn the Main Power OFF if you do not plan to use your TV for a long time or if you wish to save energy.

Allocating Stations to Channels

To view a TV programme, you must first preset stations to channels. Up to 100 stations can be preset to channels on this TV. There are two ways to preset a station to a channel, automatic and manual. Choose whichever method you like to allocate stations to channels.



■ Automatic Preset

All stations that can be received on your TV are automatically preset to TV channels in a simple operation.

Note: ……………………………………

- In automatic preset, no station can be allocated to channel 0 (AV channel). Channel 0 is for viewing RF output video from a VCR (Video Cassette Recorder). Allocate the VCR to the AV channel using manual preset.

……………………………………

To use the buttons on your TV:

1. Press CH PRESET.

```
      CH PRESET
 ▷AUTO
  MANUAL
  FINE
PR  1 : VL
••••••••||•••••••••••••••

CH PRESET/MENU:SELECT
VOL + :START
```

2. Press VOLUME +.

"→→→" is displayed on the screen, and automatic preset begins. All stations that can be received on your TV are automatically allocated to TV channels.

- When automatic preset ends, the display disappears.

To use the remote control:

1. Press MENU.

```
          MENU

▷AUTO SHUTOFF  ON/OFF
 CH PRESET
 EDIT

MENU  :SELECT
VOL-/+:ON/OFF
```

2. Press MENU to select CH PRESET.

```
          MENU

 AUTO SHUTOFF  ON/OFF
▷CH PRESET
 EDIT

MENU  :SELECT
VOL + :ENTER CH PRESET
```

3. Press VOLUME +.

```
      CH PRESET
 ▷AUTO
  MANUAL
  FINE
PR  1 : VL
••••••••||•••••••••••••••

CH PRESET/MENU:SELECT
VOL + :START
```

4. Press VOLUME +.

"→→→" is displayed on the screen, and automatic preset begins. All stations that can be received on your TV are automatically allocated to TV channels.

- When automatic preset ends, the display disappears.

■ Manual Preset

You can allocate any station to any desired channel number. Also, stations not activated by automatic preset can be stored manually to a channel.

Note: ……………………………………

- When selecting a station, if picture or sound are abnormal, see "Selecting the Colour System" or "Selecting the Sound System" on page 12.

……………………………………

To use the buttons on your TV:

1. Press CH PRESET.

```
      CH PRESET
 ▷AUTO
  MANUAL
  FINE
PR  1 : VL
••••••••||•••••••••••••••

CH PRESET/MENU:SELECT
VOL + :START
```

2. Press CH PRESET to select MANUAL.

```
      CH PRESET
  AUTO
 ▷MANUAL
  FINE
PR  1 : VL
••••••••||•••••••••••••••

CH PRESET/MENU:SELECT
VOL-/+:SEARCH UP/DOWN
```

3. Press CHANNEL ∨ ∧ to select a channel number.

- The channel number is displayed on screen as a PR number ("PR number" means preset channel number).

Example: Channel 1 is displayed as "PR 1".

4. Press VOLUME – + to select a station.

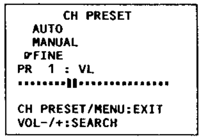
Station selection starts automatically. When a broadcast is received, station selection stops, and the display flashes once.

Press VOLUME – + repeatedly to select another station until you get the station you want.

- Repeat steps 3 and 4 to allocate all desired channels.

If the picture is not clear:

1. Press CH PRESET to select FINE.



```
      CH PRESET
 AUTO
 MANUAL
▷FINE
PR  1 : VL
........||................
CH PRESET/MENU:EXIT
VOL-/+:SEARCH
```

2. Press CHANNEL ∨ ∧ to select a channel.

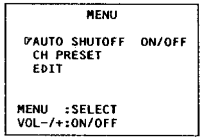
3. Press VOLUME – + to fine-adjust station selection.

5. Press CH PRESET repeatedly to turn the display off.

This completes manual preset.

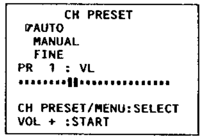
To use the remote control:

1. Press MENU.



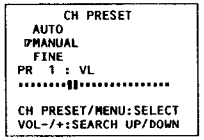
```
         MENU
 ▷AUTO SHUTOFF  ON/OFF
  CH PRESET
  EDIT

MENU  :SELECT
VOL-/+:ON/OFF
```

2. Press MENU to select CH PRESET, and then press VOLUME +.



```
      CH PRESET
▷AUTO
 MANUAL
 FINE
PR  1 : VL
........||................
CH PRESET/MENU:SELECT
VOL + :START
```

3. Press MENU to select MANUAL.



```
      CH PRESET
 AUTO
▷MANUAL
 FINE
PR  1 : VL
........||................
CH PRESET/MENU:SELECT
VOL-/+:SEARCH UP/DOWN
```

4. Press CHANNEL ∨ ∧ to select a channel number.

- The channel number is displayed on screen as a PR number ("PR number" means preset channel number).

Example: Channel 1 is displayed as "PR 1".

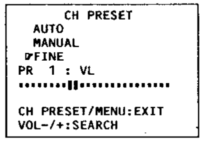
5. Press VOLUME – + to select a station.

Station selection starts automatically. When a broadcast is received, station selection stops, and the display flashes once. Press VOLUME – + repeatedly to select another station until you get the station you want.

- Repeat steps 4 and 5 to preset all desired channels.

If the picture is not clear:

1. Press MENU to select FINE.



```
      CH PRESET
 AUTO
 MANUAL
▷FINE
PR  1 : VL
........||................
CH PRESET/MENU:EXIT
VOL-/+:SEARCH
```

2. Press CHANNEL ∨ ∧ to select a channel.

3. Press VOLUME – + to fine-adjust station selection.

6. Press DISPLAY twice to turn the display off.

This completes manual preset.

Note: ....

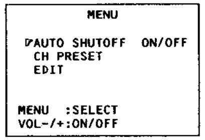
- You can also turn the display off by pressing MENU repeatedly.

....

Editing Channels

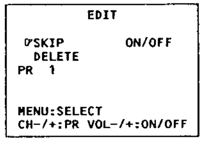
In the EDIT screen, you can delete (un-allocate) a station already allocated to a channel, or skip a specific channel.

1. Press MENU to display the MENU screen.



```
         MENU
 ▷AUTO SHUTOFF  ON/OFF
  CH PRESET
  EDIT

MENU  :SELECT
VOL-/+:ON/OFF
```

2. Press MENU to select EDIT, and press VOLUME +.



```
         EDIT
 ▷SKIP          ON/OFF
  DELETE
PR  1

MENU:SELECT
CH-/+:PR VOL-/+:ON/OFF
```

3. Press CHANNEL ∨ ∧ to select a channel.

The station preset to that channel is displayed on your TV.

4. Skip or delete the channel.

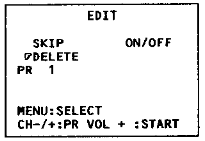
■ ***To skip a channel:***

1. Press VOLUME – + to turn the channel skip setting ON.

- When you turn on skip for a channel, that channel is skipped when you scroll through channels using CHANNEL ∨ ∧. However, note that you can select a skipped station using direct station selection.
- To cancel channel skip, turn the channel skip setting OFF.

■ ***To delete a station:***

1. Press MENU to select DELETE.



```
         EDIT
  SKIP          ON/OFF
 ▷DELETE
PR  1

MENU:SELECT
CH-/+:PR VOL + :START
```

2. Press VOLUME +.

- The station preset to that channel is deleted.

Note: ....

- When you delete a station, the channel number of every station after it moves forward by one. For example, if you delete the station preset to channel 1, then the station preset to channel 2 moves forward to channel 1, the station preset to channel 3 moves forward to channel 2, and so forth. Likewise, all preset stations up to channel 99 moves forward, one by one.

....

5. To skip or delete other channels, repeat steps 3 and 4.

6. Press DISPLAY twice to turn the display off.

This completes channel editing.

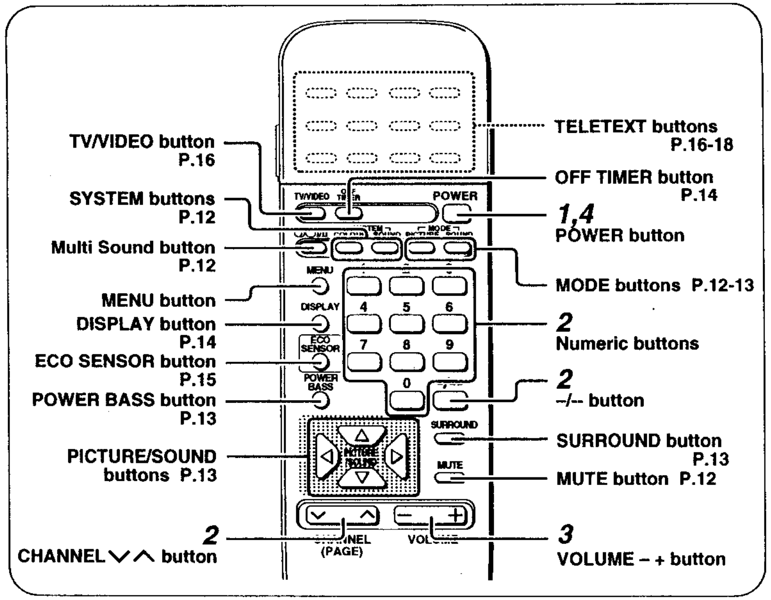
Note: ....

- You can also turn the display off by pressing MENU repeatedly.

....

VIEWING A TELEVISION PROGRAMME

Using the remote control


TV/VIDEO button P.16
SYSTEM buttons P.12
Multi Sound button P.12
MENU button
DISPLAY button P.14
ECO SENSOR button P.15
POWER BASS button P.13
PICTURE/SOUND buttons P.13
2 CHANNEL ∨∧ button
TELETEXT buttons P.16-18
OFF TIMER button P.14
1,4 POWER button
MODE buttons P.12-13
2 Numeric buttons
2 -/-- button
SURROUND button P.13
MUTE button P.12
3 VOLUME – + button
TV/VIDEO
POWER
MENU
DISPLAY
ECO SENSOR
POWER BASS
SURROUND
MUTE
CHANNEL (PAGE)
VOL

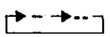
1. **Press POWER to turn your TV ON.**
   The Power lamp changes from red to green.

   Note: ....
   - If your TV does not turn ON, press the Main Power button and press POWER again.

2. **Select a PR channel.**

   ■ Scan selection
   Press CHANNEL ∨ ∧.

   ■ Direct selection
   First: Press the -/-- button to select 1-digit or 2-digit mode.
   The mode cycles in the following order.



–: 1-digit mode
Only to select a channel with a 1-digit number.

--: 2-digit mode
To select a channel with a 2-digit number (You can also select a 1-digit number).

1. Press the Numeric buttons to select a channel.
   - ■ For 1-digit mode (example)
     Channel 6 → Press 6.
   - ■ For 2-digit mode (example)
     Channel 6 → Press 0, 6.
     Channel 16 → Press 1, 6.

Notes: ....
- Channel 0 (AV channel) is displayed as "AV".

VIEWING A TELEVISION PROGRAMME

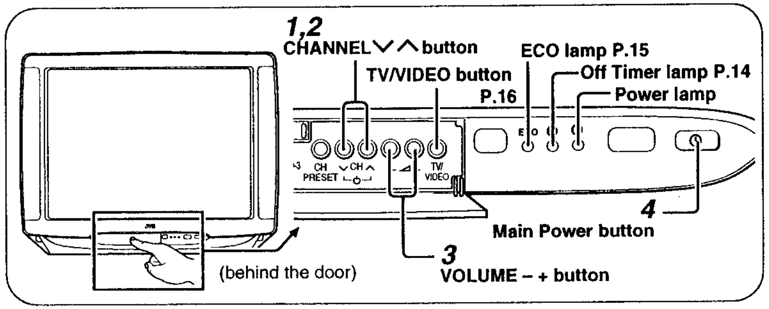
- If picture or sound are abnormal, see "Selecting the colour System" or "Selecting the Sound System" on page 12.

3. **Press VOLUME – + to adjust the sound.**

4. **To turn your TV OFF, press POWER.**
   The Power lamp changes from green to red.

   Note: ....
   - We recommend that you press the Main Power button to turn the Main Power OFF if you do not plan to use your TV for a long time or if you wish to save energy.

Using the front panel buttons


1,2 CHANNEL ∨∧ button
TV/VIDEO button P.16
ECO lamp P.15
Off Timer lamp P.14
Power lamp
4 Main Power button
3 VOLUME – + button
(behind the door)
CH PRESET
CH
TV/VIDEO

1. **Press CHANNEL ∨ ∧ to turn your TV ON.**
   The Power lamp changes from red to green, and your TV enters TV mode.

   Note: ....
   - If your TV does not turn ON, press the Main Power button and then press CHANNEL ∨ ∧ again.

2. **Press CHANNEL ∨ ∧ to select a channel.**

3. **Press VOLUME – + to adjust the sound.**

4. **To turn off your TV, press the Main Power button to turn the Main Power OFF.**
   The Power lamp goes off.
   - If you press the Main Power button again, your TV turns ON immediately. Step 1 is no longer required.

MUTE

You can turn the sound off instantly by pressing MUTE. To turn the sound back on, press MUTE again.

Multi Sound

You can select the sound system for stereo broadcast programmes and bilingual programmes. To do this, press the Multi Sound button repeatedly to select a sound system.

ꝏ :	Stereo sound
I :	Bilingual I (sub I)
II :	Bilingual II (sub II)
O :	Monaural sound

Notes: ....

- MULTI SOUND function has no effect on programmes other than A2 or NICAM broadcast programmes.
- When displaying the current channel number, the current mode appears for approx. 3 seconds.

Selecting the Colour System

If the picture is not clear or no colour appears, repeatedly press SYSTEM–COLOUR to select the appropriate system.
The system changes cyclically in the following order.

In TV mode (channel 1 to 99):

→PAL→SECAM→NTSC3.58→NTSC4.43

In TV mode (channel 0 (AV channel)):

→ AUTO → PAL → SECAM → NTSC3.58 → NTSC4.43

In VIDEO mode:

→ AUTO → PAL → SECAM → NTSC3.58 → NTSC4.43

AUTO:
Automatic colour system selection

Note: ....

- If the colour is abnormal even though you selected the AUTO colour system, select the optimum colour system manually.

Selecting the Sound System

If the sound is not clear or no sound is heard, repeatedly press SYSTEM–SOUND to select the appropriate system.
The system changes cyclically in the following order.

→ B/G → I → D/K → M

Note: ....

- You cannot select the sound system when in VIDEO mode.

Selecting the Picture Mode

You can select the desired mode from three preset picture modes. To do this, repeatedly press MODE–PICTURE to select the desired PICTURE mode.
The mode changes cyclically in the following order.

→ BRIGHT → STANDARD → SOFT

BRIGHT:
Heightens contrast and sharpness.

STANDARD:
Standardises picture adjustments.

SOFT:
Softens contrast and sharpness.

Selecting the Sound Mode

You can select the desired mode from three preset sound modes. To do this, repeatedly press MODE–SOUND to select the desired SOUND mode.
The mode changes cyclically in the following order.

→ DYNAMIC → STANDARD → LIGHT

DYNAMIC:
Heightens bass and treble.

STANDARD:
Sets standard tone.

LIGHT:
Softens bass and treble.

SURROUND

You can enjoy sound with a wider ambience by using the SURROUND function. To do this, press SURROUND. To return to normal sound, press SURROUND again.

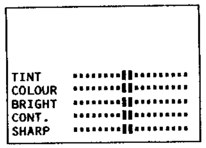
POWER BASS

The POWER BASS function lets you enjoy dynamic sound with heightened bass.
To do this, press POWER BASS. To return to normal sound, press POWER BASS again.

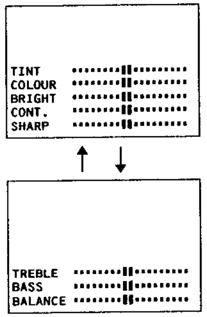
PICTURE/SOUND Adjustment

You can adjust the picture and sound as you like to suit your preferences.

1. **Press any PICTURE/SOUND button.**



2. **Press PICTURE/SOUND ▼ or ▲ to select an item.**



3. **Press PICTURE/SOUND ◀ or ▶ to adjust.**

+	ITEM	–
Reddish	TINT (tint)	Greenish
Lighter	COLOUR (colour depth)	Deeper
Darker	BRIGHT (brightness)	Brighter
Lower	CONT. (contrast)	Higher
Softer	SHARP (sharpness)	Sharper
Lower	TREBLE (high-frequency sound level)	Higher
Lower	BASS (low-frequency sound level)	Higher
To left	BALANCE (left/right speaker balance)	To right

Notes: ....

- TINT (tint) is displayed only when viewing images from NTSC3.58 or NTSC4.43 colour systems.
- If you do not do anything for about five seconds, the display is turned off and adjustment ends.

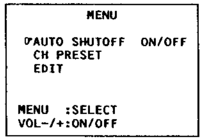
DISPLAY

You can continuously display PR channel numbers on screen. To do this, press DISPLAY. To turn the display off, press DISPLAY again.

AUTO SHUTOFF

The AUTO SHUTOFF function can be set to turn your TV off if no signals are received for about 10 minutes or longer after the end of a broadcast.

1. **Press MENU to display the MENU screen.**



```
MENU
▷AUTO SHUTOFF  ON/OFF
 CH PRESET
 EDIT

MENU  :SELECT
VOL-/+:ON/OFF
```

2. **Each press of VOLUME – + toggles the AUTO SHUTOFF setting ON and OFF.**

   ON:
   The auto shutoff function is enabled.
   OFF:
   The auto shutoff function is disabled.

3. **Press DISPLAY to turn the display off.**
   This completes the setting.

Notes:
- The auto shutoff function does not work in VIDEO mode.
- The main power cannot be turned off by the auto shutoff function.

OFF TIMER

You can set your TV to turn off automatically within a specified period of time. To do this, press OFF TIMER repeatedly. The period of time increases in 10-minute intervals.

→ 00 → 10 → 20 ••• 100 → 110 → 120 ┐

- The Off Timer lamp lights when the Off Timer is set.
- 1 minute before the Off Timer turns off the TV, "GOOD NIGHT!" appears. 3 seconds before the Off Timer turns off the TV, "JVC" is displayed, blinking, on the screen.

To display the remaining time:
Press OFF TIMER once.

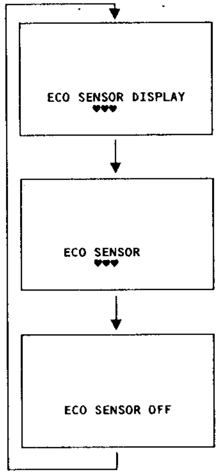
To cancel the OFF TIMER:
Press OFF TIMER to return the OFF time to 00.
The Off Timer lamp goes off.

Note:
- The Off Timer does not turn off the Main Power.

ECO SENSOR

When you turn the ECO SENSOR ON, the screen contrast is automatically adjusted to match the brightness of your room.
For example, you can avoid watching a screen that is too bright in a dark room. This reduces eye strain and the power consumption of the TV.

1. **Each press of ECO SENSOR switches the function as follows.**



ECO SENSOR: ON
Display function: ON
- The ECO lamp on the front of your TV lights.

ECO SENSOR: ON
Display function: OFF
- The ECO lamp on the front of your TV stays lit.

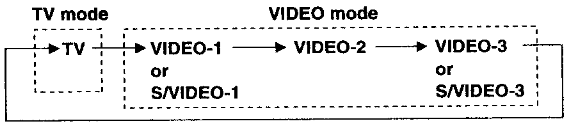
ECO SENSOR: OFF
Display function: OFF
- The ECO lamp on the front of your TV goes out.

What is the "Display function"?
This function displays the darkness of your room in ♥ each time the darkness changes when the ECO SENSOR is ON. Darkness can be up to six hearts ♥. The greater the number of hearts, the darker your room is.

VIEWING IMAGES FROM AN EXTERNAL DEVICE

You can view images from a VCR or other external device connected to your TV by selecting the appropriate VIDEO mode.

1. **Repeatedly press TV/VIDEO to select the desired VIDEO mode.**
   The mode changes cyclically in the following order.



TV mode:
Shows TV broadcasts or RF output video from an external device.

VIDEO mode:
Shows video input from the external device connected to the S/VIDEO-1, VIDEO-2, or S/VIDEO-3 terminal.

- When "S/VIDEO-1" or "S/VIDEO-3" is displayed, the TV shows video input from external devices connected to the corresponding S terminal.

Notes: ....

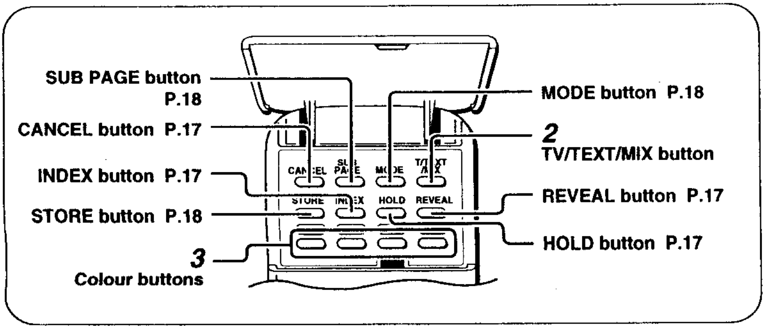
- If picture is abnormal, see "Selecting the Colour System" on page 12.
- When VCRs or other external devices are connected to both the S terminal and the VIDEO terminal, the TV shows images from the VCR or other external device connected to the S terminal.

VIEWING A TELETEXT PROGRAMME

You can view two types of teletext programmes: Fastext and WST. Both types of programmes are automatically recognized by your TV.

Note ....

- If you have problem concerning a teletext programme, consult your local dealer or television company.



VIEWING A TELETEXT PROGRAMME / TELETEXT FUNCTIONS

1. **Select a channel with teletext information.**
2. **Press TV/TEXT/MIX repeatedly to engage TEXT or MIX mode.**
   The mode changes cyclically in the following order.
   → TV mode → TEXT mode (TEXT only) → MIX mode (TV and TEXT)
3. **Select a page.**

   To scan pages:
   Press CHANNEL ∨ ∧.
   ∧ : scans forward.
   ∨ : scans backward.

   To select a page directly:
   Enter a 3-digit page number using the Numeric buttons.

   To select a page with a Colour button:
   Press the Colour button corresponding to the page number or item displayed at the bottom of the screen.

TELETEXT FUNCTIONS

Display cancel

You can view a normal TV programme while scanning for a teletext page you wish to view.

1. **Select the page you want to view.**
   Scanning starts.
2. **Press CANCEL.**
   Your TV enters TV mode.
3. **Press TV/TEXT/MIX when the page number you wish to view appears in the upper left of the screen.**

Page hold

You can hold a page temporarily even as the teletext transmission continues.
To do this, press HOLD.
Pressing HOLD or INDEX button, or selecting another teletext page will release the hold mode.

Hidden information reveal

Some teletext pages contain hidden information such as answers to questions. You can reveal the hidden information with this function.
To alternate reveal and hide, press REVEAL.

Index return

You can easily return to the index page by pressing INDEX.

Fastext/WST:	Returns to teletext page 100 or a page which has been specified.
LIST mode:	Returns to the page number displayed in red in the lower left area of the screen.

Calling up a stored page (LIST mode)

If you store the number of teletext pages you often view to memory in the LIST mode, you can quickly call up the desired teletext page whenever you like.

Note: ....

- You can store up to four teletext page numbers in each channel from 1 to 15.
  You can store up to four Teletext page numbers to other channels as common page numbers regardless of the channel number.

....

To call up a stored page:

1. **Press MODE to engage LIST mode.**
   The letter "L" indicating the LIST mode, and stored page numbers, are displayed at the bottom of the screen.
2. **Press the Colour button corresponding to the teletext page you want to view.**
   - To release LIST mode, press MODE again.

   Note: ....
   - For manufacturing reasons, page numbers are factory set initially.

   ....

To change a stored page number:

1. **Select a channel with a teletext programme.**
2. **Press MODE to engage LIST mode.**
   The letter "L" (indicating LIST mode) and stored page numbers are displayed at the bottom of the screen.
3. **Select a page number by pressing the corresponding Colour button.**
4. **Enter the three digit teletext page number using the Numeric buttons.**
5. **To change another page number, repeat steps 3 and 4.**
6. **Press STORE until the page number turns momentarily white.**
   This completes changing the page number.

Sub page display

Some teletext pages have sub-pages, which scroll automatically. You can store those pages in memory and view them again later on.

1. **Select a teletext page with sub-pages.**
2. **Press SUB PAGE.**
   "T * * * *" is displayed at the top right of the screen.
3. **Enter the sub-page number.**
   Example:
   To select the third page,
   press 0, 0, 0, 3.

   The page number displayed at the bottom of the screen is followed by "+", indicating that you are viewing a sub-page.

   Note: ....
   - "+" is not displayed when other items are displayed at the bottom of the screen.

   ....

TROUBLESHOOTING

Important: Review all the instructions in this INSTRUCTIONS manual.

Problem	Action
Cannot turn TV ON	Press the Main Power button. Insert the power plug in an AC outlet.
No picture or sound	Press TV/VIDEO to engage the correct mode. Check the aerial connections.
Inoperable remote control	Replace the batteries.
The power shuts OFF automatically	Press POWER to turn the TV ON again. Turn OFF the AUTO SHUTOFF function (see page 14).
No sound	Disconnect the headphones. Press SYSTEM–SOUND to engage the correct sound system.
No sound with stereo broadcast	Press the Multi Sound button to select ꝏ (stereo sound).
No sound for Sub-I or Sub-II for programmes broadcast with dual sound	Press the Multi Sound button to select the appropriate mode.
Poor colours	Adjust the COLOUR and BRIGHTNESS. Press SYSTEM–COLOUR to select the appropriate system. Press MODE–PICTURE to select STANDARD.
Lines or streaks in picture (interference)	Move the components apart until the interference disappears. Reposition the aerial.
Spotted picture (crosstalk)	Move the aerial away from the source of interference. Replace the aerial cable with a coaxial cable, which is less prone to interference.
Double pictures (ghost)	Reposition the aerial. Replace with an aerial with good directionality.
Snowy picture (image noise)	Check the aerial connection and aim it correctly. Replace or repair the aerial.
The screen turns blue	Broadcast not being received. Select another channel.
No receivable teletext programme	Select a channel with teletext information. You cannot watch teletext recorded on a video tape.

The following are normal occurrences and are not the result of TV malfunctions:

- When you touch the CRT surface, you might feel a slight charge of static electricity. This is because the CRT contains static electricity; it does not affect the human body.
- Your TV may emit a crackling sound due to a sudden change in temperature. There is no problem unless the picture or sound is abnormal.
- When a still bright image (of a white dress, for example) appears on the screen, the image may be coloured. This problem occurs in all CRTs, and when the bright image disappears, the colouration also disappears.

OPERATING INSTRUCTIONS

SPECIFICATIONS

Model	AV-G29MH
TV RF system	B, G, I, D, K, K1, M
Colour system	PAL, SECAM, NTSC 3.58, 4.43 MHz
Channel and frequencies	VHF low channel (VL): 46.25 – 168.25 MHz VHF high channel (VH): 175.25 – 463.25 MHz UHF channel (U): 471.25 – 863.25 MHz ■ Receives cable channels in mid band (X-Z, S1-S10) super band (S11-S20) and hyper band (S21-S41)
Sound-multiplex system	A2, NICAM
Power input	AC120 – 240 V, 50/60 Hz (operating AC 90 – 260 V, 50/60 Hz)
Power consumption	Average 120 W, Maximum 185 W
Screen size (measured diagonally)	Picture tube 73 cm Visible area 68 cm
Audio output	Rated power output: 10 W + 10 W
Speaker	10 cm round × 2, 2 cm round × 2
External input/output	• S/VIDEO-1: Video input: RCA S-video input: S-VIDEO (4-pin) Audio input: RCA × 2 • VIDEO-2: Video input: RCA Audio input: RCA × 2 • S/VIDEO-3: Video input: RCA S-video input: S-VIDEO (4-pin) Audio input: RCA × 2 • LINE OUT: Video output: RCA Audio output: RCA × 2 • Headphone jack: stereo mini jack (dia. 3.5 mm)
Dimensions (W × H × D)	733 mm × 583 mm × 492 mm
Weight	39.9 kg
Accessoires	• REMOTE CONTROL (RM-C666) × 1 • AA/R6/UM-3 Dry Cell Battery × 2 • Matching box × 1

Design and specifications subject to change without notice.

JVC
VICTOR COMPANY OF JAPAN, LIMITED

JVC

AV-G29MH

COLOUR TELEVISION

INSTRUCTIONS

Thank you for purchasing this JVC colour television.
To ensure your complete understanding, please read this manual thoroughly before operation.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

When you don't use this TV set for a long period of time, be sure to disconnect the power plug from the AC outlet.

CONNECTION *2*
PREPARATION *4*
VIEWING A TELEVISION PROGRAMME *10*
SOUND AND PICTURE *12*
OTHER FEATURES *14*
VIEWING IMAGES FROM AN EXTERNAL DEVICE *16*
USING THE TV'S REMOTE CONTROL TO CONTROL YOUR VCR *16*
TROUBLESHOOTING *17*
SPECIFICATIONS *18*

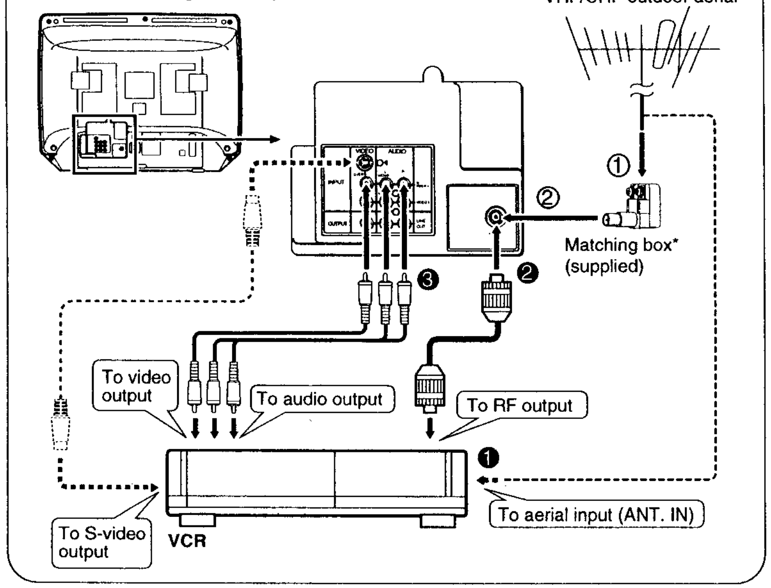
CQ40018-001-H
0795-T-AB-NV-JMT

Connecting the aerial and VCR (video cassette recorder)

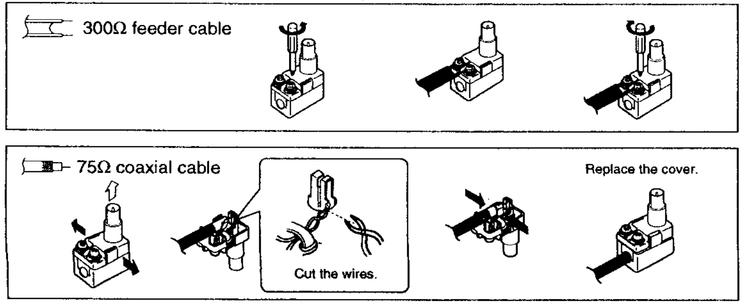
Notes:

- Refer to manuals provided with devices for further details.
- Connecting cables are not provided.
- When connecting monaural audio to the TV, use the L MONO jack.

When not connecting a VCR (video cassete recorder), proceed ① → ②.
When connecting a VCR, proceed ❶ → ❷ → ❸.

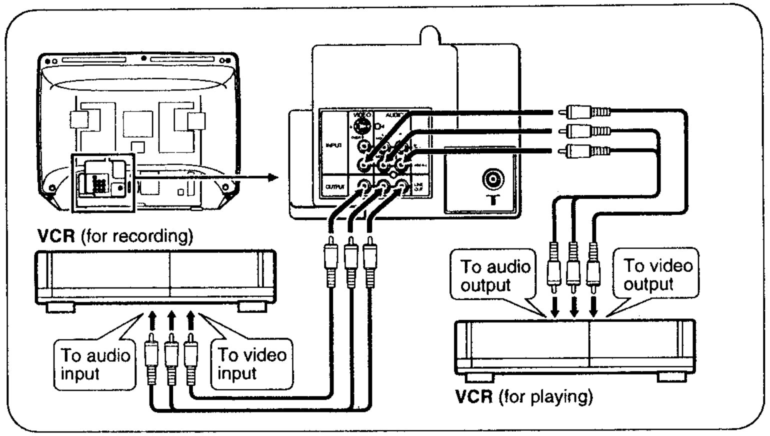

VHF/UHF outdoor aerial
①
②
Matching box*
(supplied)
❷
❸
To video output
To audio output
To RF output
❶
To aerial input (ANT. IN)
To S-video output
VCR

* How to connect to the matching box


300Ω feeder cable
75Ω coaxial cable
Cut the wires.
Replace the cover.

Connecting other external devices

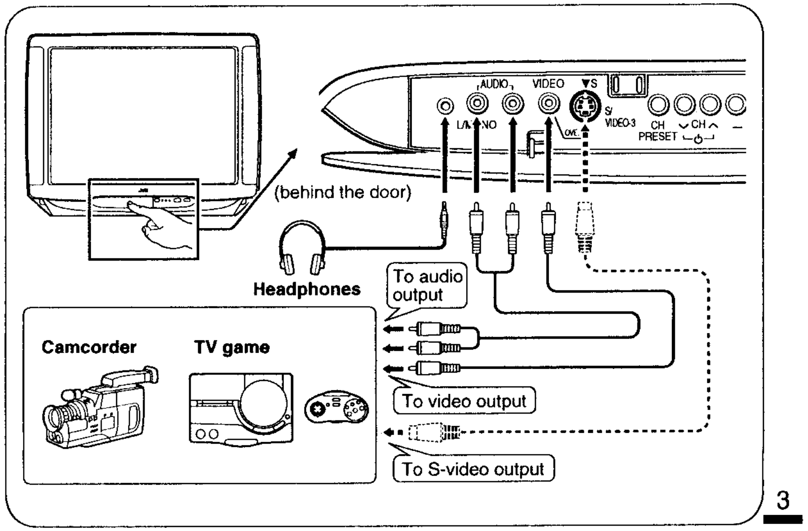
If connecting to the terminals on the rear panel


VCR (for recording)
To audio input
To video input
To audio output
To video output
VCR (for playing)

Note:

- The same sounds and pictures that you are watching on your TV are output from LINE OUT terminals.

If connecting to the terminals on the front panel

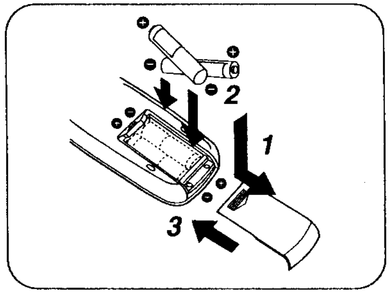

AUDIO
VIDEO
S
L/MONO
S/VIDEO-3
CH
PRESET
CH
(behind the door)
Headphones
To audio output
Camcorder
TV game
To video output
To S-video output

Connecting the power cord

Insert the Power plug into the AC outlet (AC 120 – 240V, 50/60 Hz (operating at 90 – 260 V, 50/60 Hz)).

Inserting batteries into the remote control

Correctly insert two batteries, observing the ⊕ and ⊖ polarities, inserting the ⊖ end first.



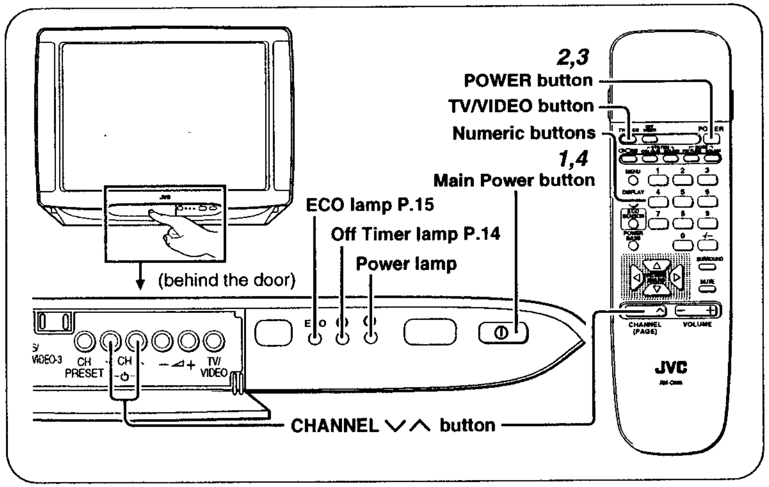
Caution:

- Follow the cautions printed on the batteries.

Notes:

- Use AA/R6/UM-3 dry cell batteries.
- Battery life is approximately six months to one year depending on frequency of use.
- If the remote control operates erratically, replace the batteries.

Turning your TV ON/OFF


2,3
POWER button
TV/VIDEO button
Numeric buttons
1,4
Main Power button
ECO lamp P.15
Off Timer lamp P.14
Power lamp
(behind the door)
S/VIDEO-3
CH PRESET
CH
TV/VIDEO
CHANNEL ∨∧ button
JVC

■To turn your TV ON

1. **Press the Main Power button to turn the Main Power ON.**
   The Power lamp lights up red.
   - Your TV enters Standby mode.
2. **Press POWER to turn your TV ON.**
   The Power lamp changes to green.

Note:

- In step 2, you can turn ON your TV by pressing any of the following buttons:
  - –CHANNEL ∨ ∧ button
  - –Numeric buttons
  - –TV/VIDEO button

■To turn your TV OFF

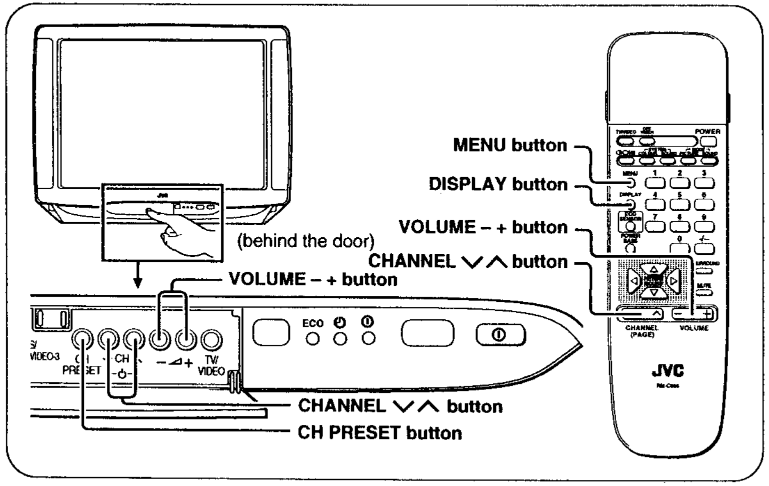
3. **Press POWER to your TV OFF.**
   The Power lamp changes to red.
   - Your TV enters Standby mode.
4. **Press Main Power to turn the Main Power OFF.**
   The Power lamp goes off.

Note:

- We recommend that you turn the Main Power OFF if you do not plan to use your TV for a long time or if you wish to save energy.

Allocating Stations to Channels

To view a TV programme, you must first preset stations to channels. Up to 100 stations can be preset to channels on this TV. There are two ways to preset a station to a channel, automatic and manual. Choose whichever method you like to allocate stations to channels.



■ Automatic Preset

All stations that can be received on your TV are automatically preset to TV channels in a simple operation.

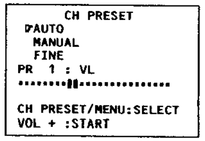
Note: ....

- In automatic preset, no station can be allocated to channel 0 (AV channel). Channel 0 is for viewing RF output Video from a VCR (Video Cassette Recorder). Allocate the VCR to the AV channel using manual preset.

....

To use the buttons on your TV:

1. Press CH PRESET.



```
       CH PRESET
 ▷AUTO
  MANUAL
  FINE
PR  1 : VL
........||...............

CH PRESET/MENU:SELECT
VOL + :START
```

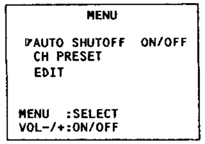
2. Press VOLUME +.

"→→→" is displayed on the screen, and automatic preset begins. All stations that can be received on your TV are automatically allocated to TV channels.

- When automatic preset ends, the display disappears.

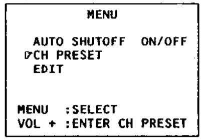
To use the remote control:

1. Press MENU.



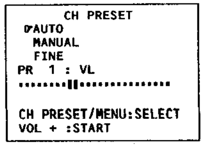
```
          MENU

 ▷AUTO SHUTOFF  ON/OFF
  CH PRESET
  EDIT


MENU  :SELECT
VOL-/+:ON/OFF
```

2. Press MENU to select CH PRESET.



```
          MENU

  AUTO SHUTOFF  ON/OFF
 ▷CH PRESET
  EDIT


MENU  :SELECT
VOL + :ENTER CH PRESET
```

3. Press VOLUME +.



```
       CH PRESET
 ▷AUTO
  MANUAL
  FINE
PR  1 : VL
........||...............

CH PRESET/MENU:SELECT
VOL + :START
```

4. Press VOLUME +.

"→→→" is displayed on the screen, and automatic preset begins. All stations that can be received on your TV are automatically allocated to TV channels.

- When automatic preset ends, the display disappears.

■ Manual Preset

You can allocate any station to any desired channel number. Also, stations not activated by automatic preset can be stored manually to a channel.

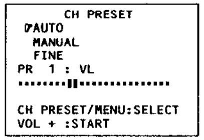
Note: ....

- When selecting a station, if picture or sound are abnormal, see "Selecting the Colour System" or "Selecting the Sound System" on page 12.

....

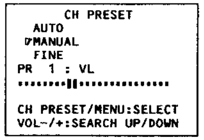
To use the buttons on your TV:

1. Press CH PRESET.



```
       CH PRESET
 ▷AUTO
  MANUAL
  FINE
PR  1 : VL
........||...............

CH PRESET/MENU:SELECT
VOL + :START
```

2. Press CH PRESET to select MANUAL.



```
       CH PRESET
  AUTO
 ▷MANUAL
  FINE
PR  1 : VL
........||...............

CH PRESET/MENU:SELECT
VOL-/+:SEARCH UP/DOWN
```

3. Press CHANNEL ∨ ∧ to select a channel number.

- The channel number is displayed on screen as a PR number ("PR number" means preset channel number).

Example: Channel 1 is displayed as "PR 1".

4. Press VOLUME – + to select a station.

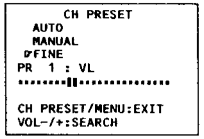
Station selection starts automatically. When a broadcast is received, station selection stops, and the display flashes once.

Press VOLUME – + repeatedly to select another station until you get the station you want.

- Repeat steps 3 and 4 to allocate all desired channels.

If the picture is not clear:

1. Press CH PRESET to select FINE.



```
        CH PRESET
  AUTO
  MANUAL
 ☞FINE
PR  1 : VL
••••••••▮▮•••••••••••••••

CH PRESET/MENU:EXIT
VOL-/+:SEARCH
```

2. Press CHANNEL ∨ ∧ to select a channel.

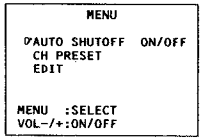
3. Press VOLUME – + to fine-adjust station selection.

5. Press CH PRESET repeatedly to turn the display off.

This completes manual preset.

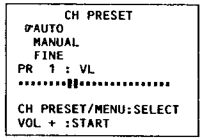
To use the remote control:

1. Press MENU.



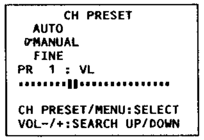
```
          MENU

 ☞AUTO SHUTOFF  ON/OFF
  CH PRESET
  EDIT


MENU  :SELECT
VOL-/+:ON/OFF
```

2. Press MENU to select CH PRESET, and press VOLUME +.



```
        CH PRESET
 ☞AUTO
  MANUAL
  FINE
PR  1 : VL
••••••••▮▮•••••••••••••••

CH PRESET/MENU:SELECT
VOL + :START
```

3. Press MENU to select MANUAL.



```
        CH PRESET
  AUTO
 ☞MANUAL
  FINE
PR  1 : VL
••••••••▮▮•••••••••••••••

CH PRESET/MENU:SELECT
VOL-/+:SEARCH UP/DOWN
```

4. Press CHANNEL ∨ ∧ to select a channel number.

- The channel number is displayed on screen as a PR number (“PR number” means preset channel number).

Example: Channel 1 is displayed as “PR 1”.

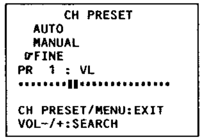
5. Press VOLUME – + to select a station.

Station selection starts automatically. When a broadcast is received, station selection stops, and the display flashes once. Press VOLUME – + repeatedly to select another station until you get the station you want.

- Repeat steps 4 and 5 to preset all desired channels.

If the picture is not clear:

1. Press MENU to select FINE.



```
        CH PRESET
  AUTO
  MANUAL
 ☞FINE
PR  1 : VL
••••••••▮▮•••••••••••••••

CH PRESET/MENU:EXIT
VOL-/+:SEARCH
```

2. Press CHANNEL ∨ ∧ to select a channel.

3. Press VOLUME – + to fine-adjust station selection.

6. Press DISPLAY twice to turn the display off.

This completes manual preset.

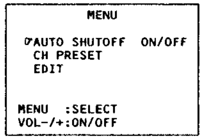
Note: ....

- You can also turn the display off by pressing MENU repeatedly.

Editing Channels

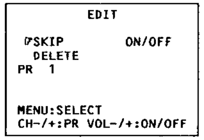
In the EDIT screen, you can delete (un-allocate) a station already allocated to a channel, or skip a specific channel.

1. Press MENU to display the MENU screen.



```
          MENU

 ☞AUTO SHUTOFF  ON/OFF
  CH PRESET
  EDIT


MENU  :SELECT
VOL-/+:ON/OFF
```

2. Press MENU to select EDIT, and press VOLUME+.



```
          EDIT

 ☞SKIP          ON/OFF
  DELETE
PR  1


MENU:SELECT
CH-/+:PR VOL-/+:ON/OFF
```

3. Press CHANNEL ∨ ∧ to select a channel.

The station preset to that channel is displayed on your TV.

4. Skip or delete the channel.

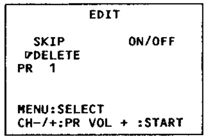
■ To skip a channel:

1. Press VOLUME – + to turn the channel skip setting ON.

- When you turn on skip for a channel, that channel is skipped when you scroll through channels using CHANNEL ∨ ∧. However, note that you can select a skipped station using direct station selection.
- To cancel channel skip, turn the channel skip setting OFF.

■ To delete a station:

1. Press MENU to select DELETE.



```
          EDIT

  SKIP          ON/OFF
 ☞DELETE
PR  1


MENU:SELECT
CH-/+:PR VOL + :START
```

2. Press VOLUME+.

- The station preset to that channel is deleted.

Note: ....

- When you delete a station, the channel number of every station after it moves forward by one. For example, if you delete the station preset to channel 1, then the station preset to channel 2 is shifted back to channel 1, the station preset to channel 3 is shifted back to channel 2, and so forth. Likewise, all preset stations up to channel 99 are shifted back, one by one.

....

5. To skip or delete other channels, repeat steps 3 and 4.

6. Press DISPLAY twice to turn the display off.

This completes channel editing.

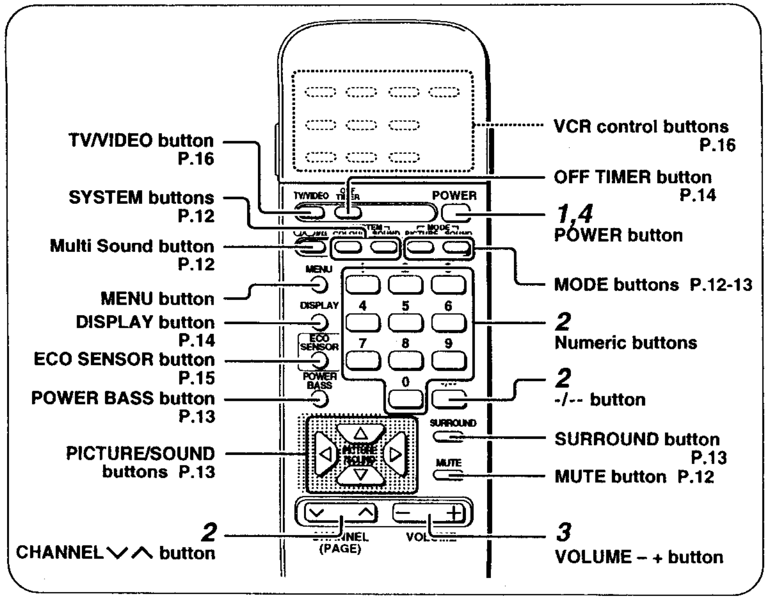
Note: ....

- You can also turn the display off by pressing MENU repeatedly.

....

VIEWING A TELEVISION PROGRAMME

Using the remote control


TV/VIDEO button P.16
SYSTEM buttons P.12
Multi Sound button P.12
MENU button
DISPLAY button P.14
ECO SENSOR button P.15
POWER BASS button P.13
PICTURE/SOUND buttons P.13
2
CHANNEL ∨ ∧ button
VCR control buttons P.16
OFF TIMER button P.14
1,4
POWER button
MODE buttons P.12-13
2
Numeric buttons
2
-/-- button
SURROUND button P.13
MUTE button P.12
3
VOLUME – + button
TV/VIDEO
POWER
MENU
DISPLAY
ECO SENSOR
POWER BASS
SURROUND
MUTE
(PAGE)
4
5
6
7
8
9
0

1. **Press POWER to turn your TV ON.**
   The Power lamp changes from red to green.

   Note: ....

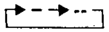
   - If your TV does not turn ON, press the Main Power button and press POWER again.

   ....

2. **Select a PR channel.**

   ■ Scan selection
   Press CHANNEL ∨ ∧.

   ■ Direct selection
   First: Press the -/-- button to select 1-digit or 2-digit mode.
   The mode cycles in the following order.



-: 1-digit mode
Only to select a channel with a 1-digit number.

--: 2-digit mode
To select a channel with a 2-digit number. (You can also select a 1-digit number.)

1. Press the Numeric buttons to select a channel.
   ■ For 1-digit mode
   (example)
   Channel 6 → Press 6.
   ■ For 2-digit mode
   (example)
   Channel 6 → Press 0, 6.
   Channel 16 → Press 1, 6.

Notes: ....

- Channel 0 (AV channel) is displayed as "AV".

VIEWING A TELEVISION PROGRAMME

- If picture or sound are abnormal, see "Selecting the colour System" or "Selecting the Sound System" on page 12.

....

3. **Press VOLUME – + to adjust the sound.**

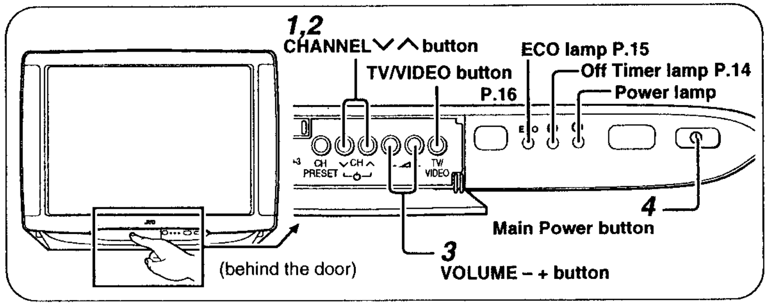
4. **To turn your TV OFF, press POWER.**
   The Power lamp changes from green to red.

   Note: ....

   - We recommend that you press the Main Power button to turn the Main Power OFF if you do not plan to use your TV for a long time or if you wish to save energy.

   ....

Using the front panel buttons


1,2
CHANNEL ∨ ∧ button
TV/VIDEO button P.16
ECO lamp P.15
Off Timer lamp P.14
Power lamp
4
Main Power button
3
VOLUME – + button
(behind the door)
CH PRESET
∨CH∧
TV/VIDEO

1. **Press CHANNEL ∨ ∧ to turn your TV ON.**
   The Power lamp changes from red to green, and your TV enters TV mode.

   Note: ....

   - If your TV does not turn ON, press the Main Power button and then press CHANNEL ∨ ∧ again.

   ....

2. **Press CHANNEL ∨ ∧ to select a channel.**

3. **Press VOLUME – + to adjust the sound.**

4. **To turn off your TV, press the Main Power button to turn the Main Power OFF.**
   The Power lamp goes off.
   - If you press the Main Power button again, your TV turns ON immediately. Step 1 is no longer required.

SOUND AND PICTURE

MUTE

You can turn the sound off instantly by pressing MUTE. To turn the sound back on, press MUTE again.

Multi Sound

You can select the sound system for stereo broadcast programmes and bilingual programmes. To do this, press the Multi Sound button repeatedly to select a sound system.

ꝏ :	Stereo sound
I :	Bilingual I (sub I)
II :	Bilingual II (sub II)
O :	Monaural sound

Notes: ....

- MULTI SOUND function has no effect on programmes other then A2 or NICAM broadcast programmes.
- When displaying the current channel number, the current mode appears for approx. 3 seconds.

....

Selecting the Colour System

If the picture is not clear or no colour appears, repeatedly press SYSTEM–COLOUR to select the appropriate system.
The system changes cyclically in the following order.

In TV mode (channel 1 to 99):

→PAL→SECAM→NTSC3.58→NTSC4.43

In TV mode (channel 0 (AV channel)):

→ AUTO → PAL → SECAM
NTSC4.43 ← NTSC3.58 ←

In VIDEO mode:

→ AUTO → PAL → SECAM
NTSC4.43 ← NTSC3.58 ←

AUTO:
Automatic colour system selection

Note: ....

- If picture colour is abnormal even though you selected the AUTO colour system, select the optimum colour system manually.

....

Selecting the Sound System

If the sound is not clear or no sound is heard, repeatedly press SYSTEM–SOUND to select the appropriate system.
The system changes cyclically in the following order.

→ B/G → I → D/K → M

Note: ....

- You cannot select the sound system when in VIDEO mode.

....

Selecting the Picture Mode

You can select the desired mode from three preset picture modes. To do this, repeatedly press MODE–PICTURE to select the desired PICTURE mode.
The mode changes cyclically in the following order.

→ BRIGHT → STANDARD → SOFT

BRIGHT:
Heightens contrast and sharpness.

STANDARD:
Standardises picture adjustments.

SOFT:
Softens contrast and sharpness.

Selecting the Sound Mode

You can select the desired mode from three preset sound modes. To do this, repeatedly press MODE–SOUND to select the desired SOUND mode.
The mode changes cyclically in the following order.

→ DYNAMIC → STANDARD → LIGHT

DYNAMIC:
Heightens bass and treble.

STANDARD:
Sets standard tone.

LIGHT:
Softens bass and treble.

SURROUND

You can enjoy sounds with a wider ambience by the SURROUND function. To do this, press SURROUND. To return to normal sound, press SURROUND again.

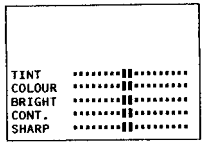
POWER BASS

The POWER BASS function lets you enjoy dynamic sound with heightened bass.
To do this, press POWER BASS. To return to normal sound, press POWER BASS again.

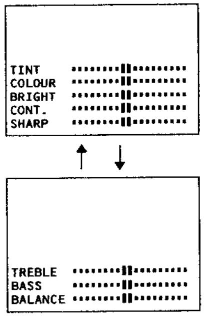
PICTURE/SOUND Adjustment

You can adjust the picture and sound as you like to suit your preferences.

1. **Press any PICTURE/SOUND button.**



2. **Press PICTURE/SOUND ▼ or ▲ to select an item.**



3. **Press PICTURE/SOUND ◀ or ▶ to adjust.**

+	ITEM	–
Reddish	TINT (tint)	Greenish
Lighter	COLOUR (colour depth)	Deeper
Darker	BRIGHT (brightness)	Brighter
Lower	CONT. (contrast)	Higher
Softer	SHARP (sharpness)	Sharper
Lower	TREBLE (high-frequency sound level)	Higher
Lower	BASS (low-frequency sound level)	Higher
To left	BALANCE (left/right speaker balance)	To right

Notes: ....

- TINT (tint) is displayed only when viewing images from NTSC3.58 or NTSC4.43 colour systems.
- If you do not do anything for about five seconds, the display is turned off and adjustment ends.

....

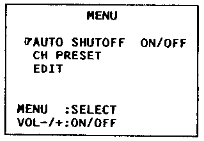
DISPLAY

You can continuously display PR channel numbers on screen. To do this, press DISPLAY. To turn the display off, press DISPLAY again.

AUTO SHUTOFF

The AUTO SHUTOFF function can be set to turn your TV off if no signals are received for about 10 minutes or longer after the end of a broadcast.

1. Press MENU to display the MENU screen.



```
MENU
▷AUTO SHUTOFF  ON/OFF
 CH PRESET
 EDIT

MENU :SELECT
VOL-/+:ON/OFF
```

2. Each press of VOLUME – + toggles the AUTO SHUTOFF setting ON and OFF.

ON:
The auto shutoff function is enabled.

OFF:
The auto shutoff function is disabled.

3. Press DISPLAY to turn the display off.

This completes the setting.

Notes: ....

- The auto shutoff function does not work in VIDEO mode.
- The main power cannot be turned off by the auto shutoff function.

....

OFF TIMER

You can set your TV to turn off automatically within a specified period of time. To do this, press OFF TIMER repeatedly. The period of time increases in 10-minute intervals.

→ 00 → 10 → 20 ••• 100 → 110 → 120

- The Off Timer lamp lights when the Off Timer is set.
- 1 minute before the Off Timer turns off the TV, "GOOD NIGHT!" appears. 3 seconds before the Off Timer turns off the TV, "JVC" is displayed, blinking, on the screen.

To display the remaining time:
Press OFF TIMER once.

To cancel the OFF TIMER:
Press OFF TIMER to return the OFF time to 00.
The Off Timer lamp goes off.

Note: ....

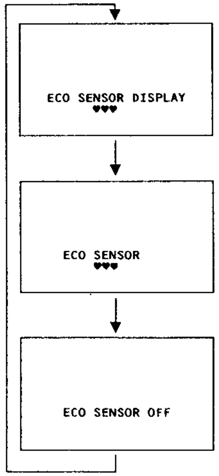
- The Off Timer does not turn off the Main Power.

....

ECO SENSOR

When you turn the ECO SENSOR ON, the screen contrast is automatically adjusted to match the brightness of your room.
For example, you can avoid watching a screen that is too bright in a dark room. This reduces eye strain and the power consumption of the TV.

1. Each press of ECO SENSOR switches the function as follows.



ECO SENSOR: ON
Display function: ON
- The ECO lamp on the front of your TV lights.

ECO SENSOR: ON
Display function: OFF
- The ECO lamp on the front of your TV stays lit.

ECO SENSOR: OFF
Display function: OFF
- The ECO lamp on the front of your TV goes out.

What is the "Display function"?
This function displays the darkness of your room in ♥ each time the darkness changes when the ECO SENSOR is ON. Darkness can be up to six hearts ♥. The greater the number of hearts, the darker your room is.

VIEWING IMAGES FROM AN EXTERNAL DEVICE

You can view images from a VCR or other external device connected to your TV by selecting the appropriate VIDEO mode.

1. Repeatedly press TV/VIDEO to select the desired VIDEO mode.

The mode changes cyclically in the following order.

TV mode **VIDEO mode**

TV → VIDEO-1 or S/VIDEO-1 → VIDEO-2 → VIDEO-3 or S/VIDEO-3 → TV

TV mode:
Shows TV broadcasts or RF output video from an external device.

VIDEO mode:
Shows video input from the external device connected to the S/VIDEO-1, VIDEO-2, or S/VIDEO-3 terminal.

- When "S/VIDEO-1" or "S/VIDEO-3" is displayed, the TV shows video input from external devices connected to the corresponding S terminal.

Notes:

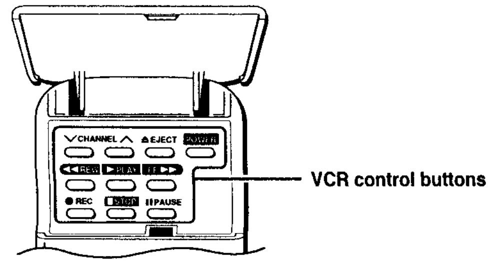
- If picture is abnormal, see "Selecting the Colour System" on page 12.
- When VCRs or other external devices are connected to both the S terminal and the VIDEO terminal, the TV shows images from the VCR or other external device connected to the S terminal.

USING THE TV'S REMOTE CONTROL TO CONTROL YOUR VCR

The VCR control buttons on the remote control have the same functions as those on JVC VCRs. For details, refer to the instruction manual provided with your JVC VCR.

Note

- The remote control may not operate some or any functions depending on your VCR.



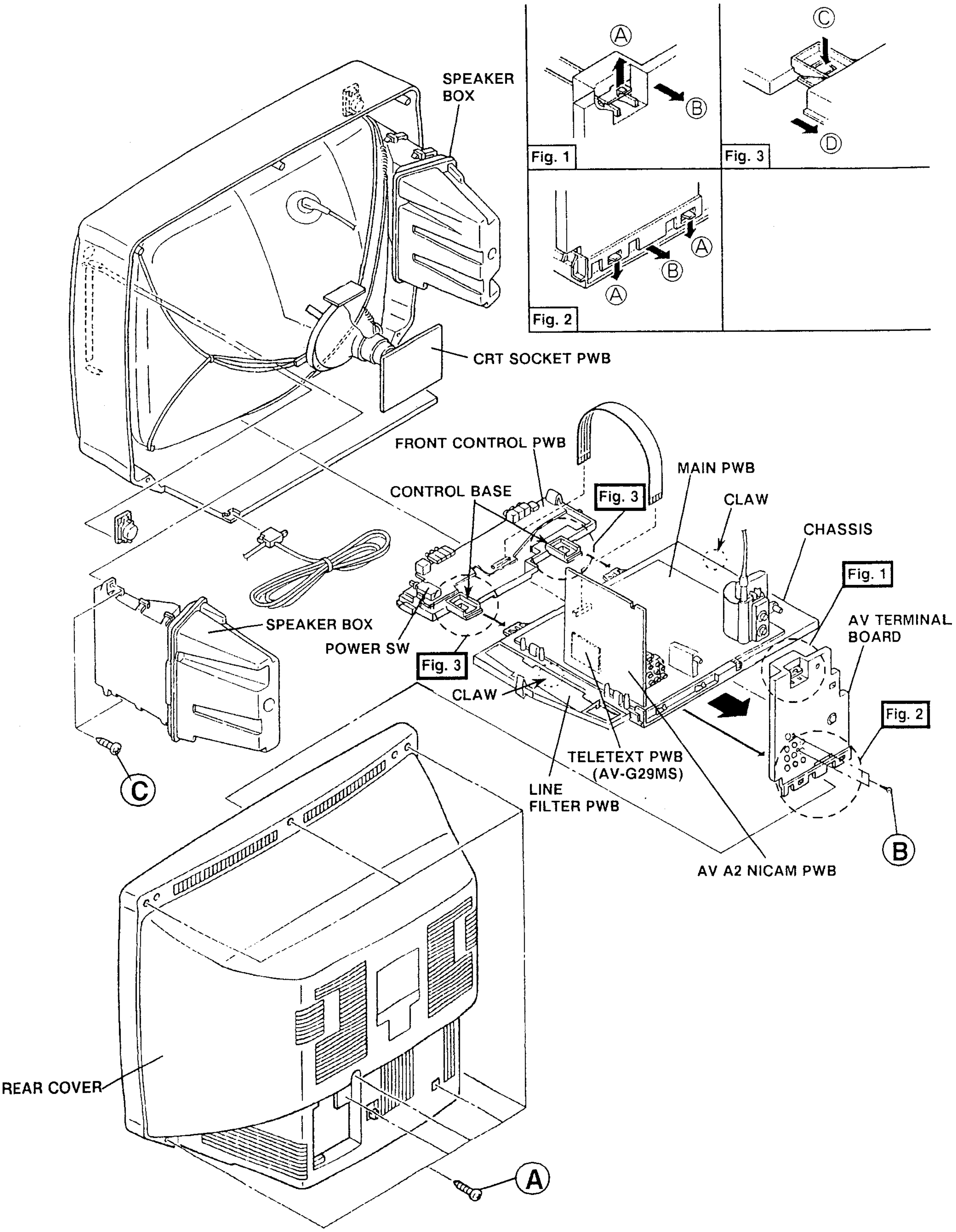
TROUBLESHOOTING

Important: Review all the instructions in this INSTRUCTIONS manual.

Problem	Action
Cannot turn TV ON	Press the Main Power button. Insert the power plug in an AC outlet.
No picture or sound Check the aerial connections.	Press TV/VIDEO to engage the correct mode.
Inoperable remote control	Replace the batteries.
The power shuts OFF automatically	Press POWER to turn the TV ON again. Turn OFF the AUTO SHUTOFF function (see page 14).
No sound	Disconnect the headphones. Press SYSTEM–SOUND to engage the correct sound system.
No sound with stereo broadcast	Press the Multi Sound button to select ꝏ (stereo sound).
No sound for Sub-I or Sub-II for programmes broadcast with dual sound	Press the Multi Sound button to select the appropriate mode.
Poor colours	Adjust the COLOUR and BRIGHTNESS. Press SYSTEM–COLOUR to select the appropriate system. Press MODE–PICTURE to select STANDARD.
Lines or streaks in picture (interference)	Move the components apart until the interference disappears. Reposition the aerial.
Spotted picture (crosstalk)	Move the aerial away from the source of interference. Replace the aerial cable with a coaxial cable, which is less prone to interference.
Double pictures (ghost)	Reposition the aerial. Replace with an aerial with good directionality.
Snowy picture (image noise)	Check the aerial connection and aim it correctly. Replace or repair the aerial.
The screen turns blue	Broadcast not being received. Select another channel.

The following are normal occurrences and are not the result of TV malfunctions:

- When you touch the CRT surface, you might feel a slight charge of static electricity. This is because the CRT contains static electricity; it does not affect the human body.
- Your TV may emit a crackling sound due to a sudden change in temperature. There is no problem unless the picture or sound is abnormal.
- When a still bright image (of a white dress, for example) appears on the screen, the image may be coloured. This problem occurs in all CRTs, and when the bright image disappears, the colouration also disappears.


A
B
Fig. 1
C
D
Fig. 3
A
B
A
Fig. 2
SPEAKER BOX
CRT SOCKET PWB
FRONT CONTROL PWB
MAIN PWB
CONTROL BASE
Fig. 3
CLAW
CHASSIS
Fig. 1
AV TERMINAL BOARD
SPEAKER BOX
POWER SW
Fig. 3
CLAW
Fig. 2
TELETEXT PWB (AV-G29MS)
LINE FILTER PWB
C
B
AV A2 NICAM PWB
REAR COVER
A

REPLACEMENT OF MEMORY ICs

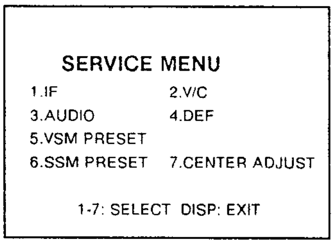
1. Memory ICs

This TV use memory ICs (EEP-ROM IC). In the memory ICs are memorized data for correctly operating the video and deflection circuits. When replacing memory ICs, be sure to use ICs written with the initial values of data.

2. Procedure for replacing memory ICs

Procedure
(1) Power off Switch the power off and unplug the power code from the outlet.
(2) Replace ICs. Be sure to use memory ICs written with the initial data values.
(3) Power on Plug the power code into the outlet and switch the power on.
(4) Check and set SYSTEM CONSTANT SET: 1) Press the DISPLAY key and the PICTURE MODE key (shown in Fg.3) of the REMOTE CONTROL UNIT simultaneously. 2) The SERVICE MENU screen of Fig. 1 will be displayed. 3) While the SERVICE MENU on display, press the DISPLAY key and PICTURE MODE key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed. 4) Check the setting value of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the PICTURE / SOUND UP or DOWN key, and set the correct value with the PICTURE / SOUND L or R key. 5) Press the MENU key and memorize the setting value. 6) Press the DISPLAY key twice, and return to the normal screen.
(5) Setting of receive channels Set the receive channel (CHANNEL PRESET). (For AUTO PROGRAM) For setting, refer to the **OPERATING INSTRUCTIONS**.
(6) User Setting Check the user seting value of Table 2, and if setting value is different, set the correct value. For setting, refer to the **OPERATING INSTRUCTIONS**.
(7) Setting of SERVICE MENU Verify the seting items of the SERVICE MENU of Table 3, and reset where necessary. For setting, refer to the **SERVICE ADJUSTMENTS**.

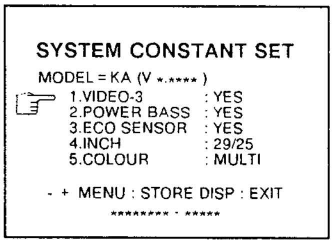
SERVICE MENU



```
SERVICE MENU
1.IF              2.V/C
3.AUDIO           4.DEF
5.VSM PRESET
6.SSM PRESET      7.CENTER ADJUST

1-7: SELECT  DISP: EXIT
```

Fig. 1

SYSTEM CONSTANT SET



```
SYSTEM CONSTANT SET
MODEL = KA (V *.**** )
   1.VIDEO-3         : YES
   2.POWER BASS      : YES
   3.ECO SENSOR      : YES
   4.INCH            : 29/25
   5.COLOUR          : MULTI

- + MENU : STORE DISP : EXIT
      ******** - *****
```

Fig. 2

NAMES OF REMOTE CONTROL KEY

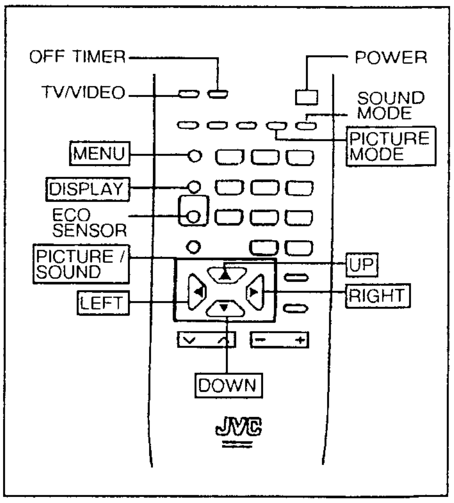


Fig. 3

SETTING VALUES OF SYSTEM CONSTANT SET

Setting item	Setting content	Setting value
1. VIDEO-3	→ YES → NO	YES
2. POWER BASS	→ YES → NO	YES
3. ECO SENSOR	→ YES → NO	YES
4. INCH	→ 21 → 29 / 25	29 / 25
5. COLOUR	→ PAL → MULTI → TRIPLE	MULTI

Table 1

USER SETTING VALUES

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	SURROUND	OFF
CHANNEL	2 POSITION	OFF TIMER	OFF
CHANNEL PRESET	see, 2.(5) setting of receive channel.	POWER BASS	OFF
VOLUME	Appropriate sound volume	PICTURE MODE (VSM)	BRIGHT
TV/VIDEO	TV	SOUND MODE (SSM)	DYNAMIC
DISPLAY	POSITION DISPLAY	ECO	OFF
COLOUR SYSTEM	PAL	AUTO SHUT OFF	OFF
SOUND SYSTEM	B / G	BALANCE	CENTER
SOUND MULTI. MODE	STEREO		

Table 2

SERVICE MENU SETTING ITEMS

Service menu	Setting item	Service menu	Setting item
1. IF	1. VCO 2. DELAY POINT	**4. DEF** ($50H_Z$ / $60H_Z$)	1. V-SLOPE 2. V-SHIFT 3. V-SIZE 4. H-CENT 5. H-SIZE 6. EW-PIN 7. TRAPEZ 8. V-S.CR 9. EW-COR
2. V / C	1. CUT OFF 2. R DRIVE 3. G DRIVE 4. B DRIVE **(Do not adjust)** 5. BRIGHT 6. CONT. 7. COLOUR (AUTO PAL / SECAM / N3 / N4) 8. TINT (NTSC) 9. DELAY TIME **(Do not adjust)** 10.SHARP	**5. VSM PRESET** (BRIGHT/STD/SOFT)	1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. TINT
		6. SSM PRESET (DYNAMIC/STD/LIGHT)	TREBLE BASS
3. AUDIO	1. CONC LIMIT **(Do not adjust)** 2. A2 ID THR **(Do not adjust)** 3. SOUND SYSTEM **(Do not adjust)**	**7. CENTER ADJUST**	TREBLE BASS

Table 3

REPLACEMENT OF CHIP COMPONENT

■CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■SOLDERING IRON

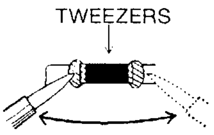
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■REPLACEMENT STEPS

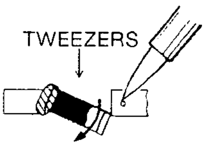
1. How to remove Chip parts

- Resistors, capacitors, etc

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

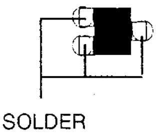


(2) Shift with tweezers and remove the chip part.

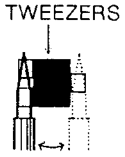


- Transistors, diodes, variable resistors, etc

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

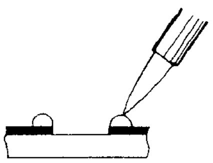


Note: After removing the part, remove remaining solder from the pattern.

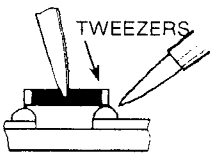
2. How to install Chip parts

- Resistors, capacitors, etc

(1) Apply solder to the pattern as indicated in the figure.



(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

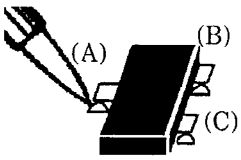


- Transistors, diodes, variable resistors, etc

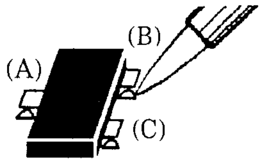
(1) Apply solder to the pattern as indicated in the figure.

(2) Grasp the chip part with tweezers and place it on the solder.

(3) First solder lead A as indicated in the figure.



(4) Then solder leads B and C.



SERVICE ADJUSTMENTS

BEFORE STARTING SERVICE ADJUSTMENT

1. **There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
2. **The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
3. Turn on the power of the TV and measuring equipment for warming up for at least 30 minutes before starting adjustment.
4. Make sure that connection is correctly made to AC power (220V) source.
5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.
7. Preparation for adjustment (presetting):
   Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:

(1) PICTURE MODE (VSM)	STANDARD
(2) ECO	OFF
(3) SOUND MODE (SSM)	STANDARD
(4) SURROUND	OFF
(5) BALANCE	CENTER
(6) POWER BASS	OFF

MEASUREMENT EQUIPMENT AND FIXTURES

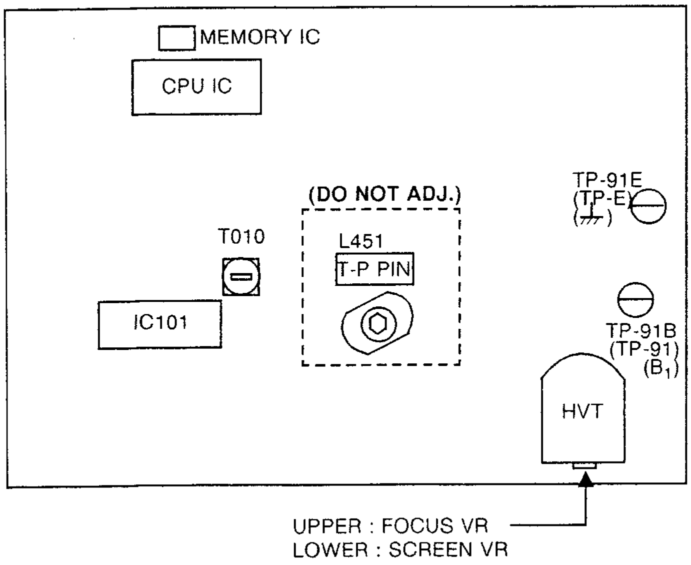
1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

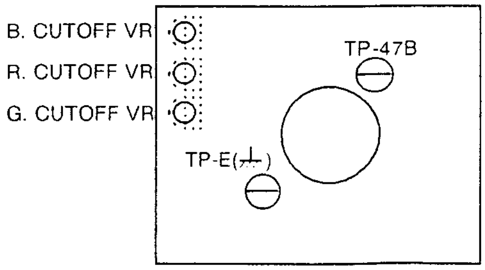
Adjustment item	Adjustment item
B1 POWER SUPPLY check	VSM / SSM / CENTER ADJUST PRESET setting
	VIDEO/CHROMA circuit adjustment
FOCUS adjustment	DEFLECTION circuit adjustment
IF circuit adjustment	AUDIO circuit (Do not adjust.)

ADJUSTMENT LOCATIONS

MAIN PWB ASS'Y



CRT SOCKET PWB ASS'Y



BASIC OPERATION OF SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following 6 items of settings (adjustments):

(1)	**1. IF**	For entering/adjusting the setting values (adjustment values) of the IF circuit.
(2)	**2. V/C**	For entering/adjusting the setting values (adjustment values) of the VIDEO/CHROMA circuit.
(3)	**3. AUDIO**	For entering/adjusting the setting values (adjustment values) of the multiplicity SOUND circuit.
(4)	**4. DEF**	For entering/adjusting the setting values (adjustment values) of the DEFLECTION circuit.
(5)	**5. VSM PRESET**	For setting the values of STANDARD, SOFT and BRIGHT. (VSM : video status memory)
(6)	**6. SSM PRESET**	For setting the values of STANDARD, LIGHT and DYNAMIC. (SSM : sound status memory)
(7)	**7. CENTER ADJUST**	For setting the CENTER ADJUST values of BASS and TREBLE.

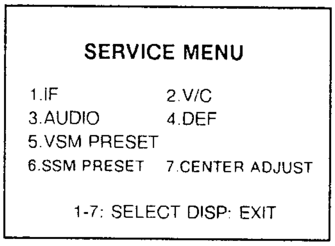
- There are two different kinds of TV sets one can display CENTER ADJUST and the other cannot do so.
- For the TV set whose CENTER ADJUST can be displayed, refer to the method of "CENTER ADJUST" described in the "Setting of VSM / SSM PRESENT & CENTER ADJUST" for adjustments.

3. BASIC OPERATION OF SERVICE MENU

(1) How to enter SERVICE MENU

Press the DISPLAY key and the PICTURE MODE key of the REMOTE CONTROL UNIT simultaneously. The SERVICE MENU screen of Fig.1 will be displayed.

SERVICE MENU



SERVICE MENU

1.IF 2.V/C
3.AUDIO 4.DEF
5.VSM PRESET
6.SSM PRESET 7.CENTER ADJUST

1-7: SELECT DISP: EXIT

Fig. 1

(2) Selection of SUB MENU SCREEN

1) Press one of the keys 1 ~ 7 of the REMOTE CONTROL UNIT, and select the SUB MENU SCREEN (See Fig. 2) from the SERVICE MENU.

SERVICE MENU → SUB MENU
1. IF
2. V / C
3. AUDIO
4. DEF.
5. VSM PRESET
6. SSM PRESET
7. CENTER ADJUST

NAMES OF REMOTE CONTROL KEY

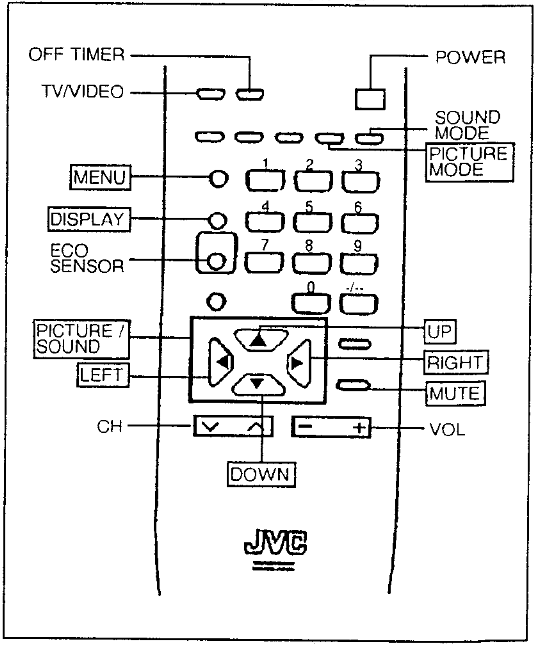
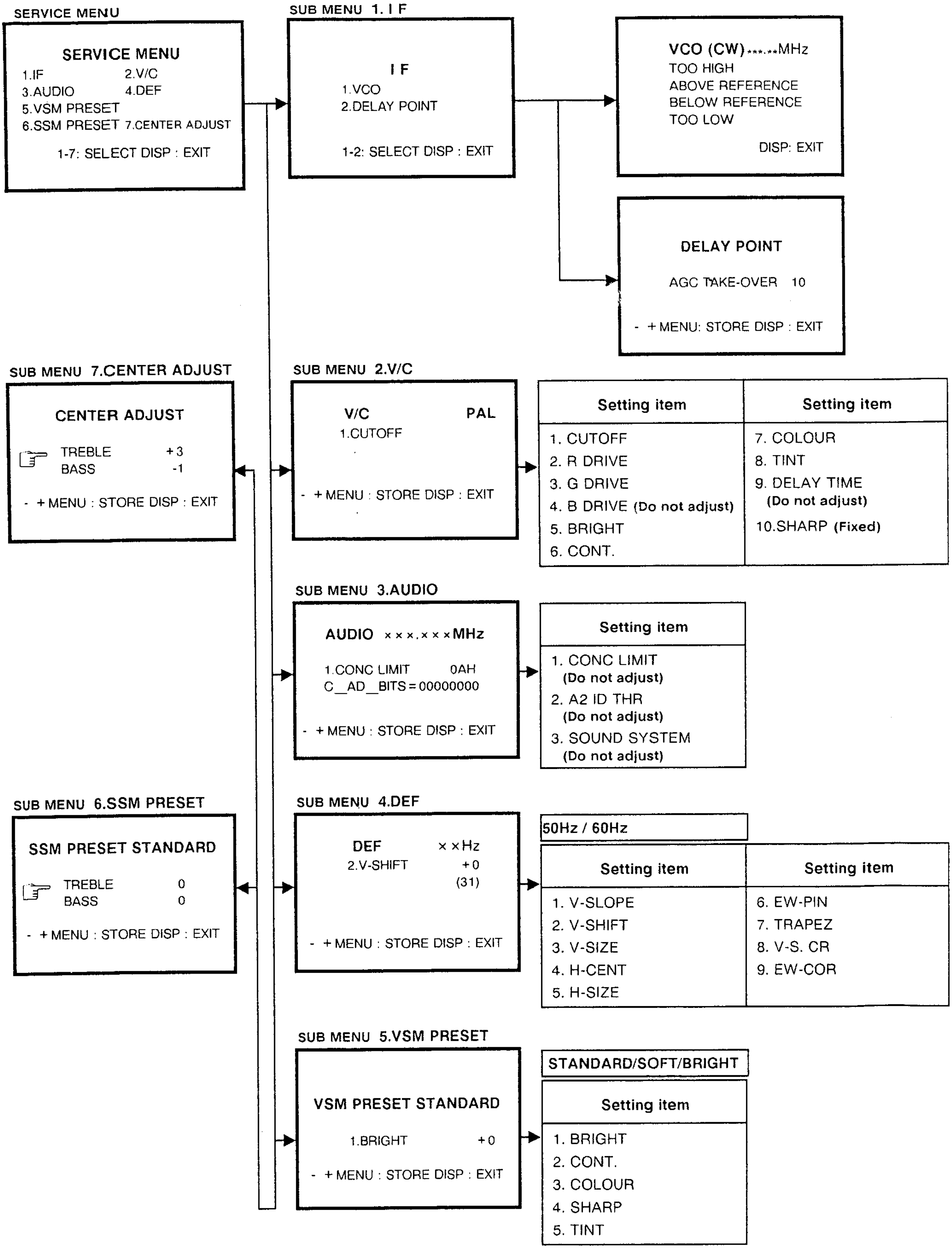


Fig. 2



SERVICE MENU

SERVICE MENU
1.IF 2.V/C
3.AUDIO 4.DEF
5.VSM PRESET
6.SSM PRESET 7.CENTER ADJUST
1-7: SELECT DISP : EXIT

SUB MENU 1. I F

I F
1.VCO
2.DELAY POINT
1-2: SELECT DISP : EXIT

VCO (CW)***.**MHz
TOO HIGH
ABOVE REFERENCE
BELOW REFERENCE
TOO LOW
DISP: EXIT

DELAY POINT
AGC TAKE-OVER 10
- +MENU: STORE DISP : EXIT

SUB MENU 7.CENTER ADJUST

CENTER ADJUST
☞ TREBLE +3
BASS -1
- +MENU : STORE DISP : EXIT

SUB MENU 2.V/C

V/C PAL
1.CUTOFF
- +MENU : STORE DISP : EXIT

Setting item	Setting item
1. CUTOFF	7. COLOUR
2. R DRIVE	8. TINT
3. G DRIVE	9. DELAY TIME **(Do not adjust)**
4. B DRIVE **(Do not adjust)**	10.SHARP **(Fixed)**
5. BRIGHT	
6. CONT.	

SUB MENU 3.AUDIO

AUDIO ×××.×××MHz
1.CONC LIMIT 0AH
C_AD_BITS=00000000
- +MENU : STORE DISP : EXIT

Setting item
1. CONC LIMIT **(Do not adjust)**
2. A2 ID THR **(Do not adjust)**
3. SOUND SYSTEM **(Do not adjust)**

SUB MENU 6.SSM PRESET

SSM PRESET STANDARD
☞ TREBLE 0
BASS 0
- +MENU : STORE DISP : EXIT

SUB MENU 4.DEF

DEF ××Hz
2.V-SHIFT +0
(31)
- +MENU : STORE DISP : EXIT

50Hz / 60Hz

Setting item	Setting item
1. V-SLOPE	6. EW-PIN
2. V-SHIFT	7. TRAPEZ
3. V-SIZE	8. V-S. CR
4. H-CENT	9. EW-COR
5. H-SIZE	

SUB MENU 5.VSM PRESET

VSM PRESET STANDARD
1.BRIGHT +0
- +MENU : STORE DISP : EXIT

STANDARD/SOFT/BRIGHT

Setting item
1. BRIGHT
2. CONT.
3. COLOUR
4. SHARP
5. TINT

Fig. 2 SUB MENU SCREEN

(3) Method of Setting

1) Method of Setting **1. IF**

[1. VCO]

① 1 Key	Select **1.IF**.
② 1 Key	Select 1.VCO.

③ The VCO (CW) screen will be displayed in yellow when the AFC voltage is at a certain level and in blue when it is at other levels.

④ DISPLAY Key	As you press this twice, you will return to the **SERVICE MENU**.

[2. DELAY POINT]

① 1 Key	Select **1.IF**.
② 2 Key	Select 2.DELAY POINT.
③ PICTURE / SOUND L or R	Set (adjust) the setting values of the setting items.
④ MENU Key	Memorize the set value. (Before storing the setting values in memory, do not press the CH, TV / VIDEO, DISPLAY, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
⑤ DISPLAY Key	When this is pressed twice, you will return to the SERVICE MENU.

2) Method of setting **2.V/C, 3.AUDIO, 4.DEF, 5.VSM PRESET, 6.SSM PRESET AND 7.CENTER ADJUST**

① 2 ~ 7 Keys	Select one from **2. V/C, 3. AUDIO, 4. DEF, 5. VSM PRESET, 6. SSM PRESET and 7.CENTER ADJUST**
② PICTURE / SOUND UP or DOWN Key	Select setting items.
③ PICTURE / SOUND L or R	Set (adjust) the setting values of the setting items.(When 1.CUTOFF of 2.V/C is selected, press its "L" or "R" key, and the whole screen will change to a faint horizontal line appearing in its center. Press the same "L" or "R" key again, and the screen will return to the original 1.CUTOFF screen.)
④ MENU Key	Memorize the setting value. (Before storing the setting values in memory, do not press the CH, TV / VIDEO, DISPLAY, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
⑤ DISPLAY Key	Return to the SERVICE MENU screen.

(4) Release of SERVICE MENU

1) After completings the setting, return to the SERVICE MENU, then again press the DISPLAY key.

ADJUSTMENTS

B1 POWER SUPPLY CHECK

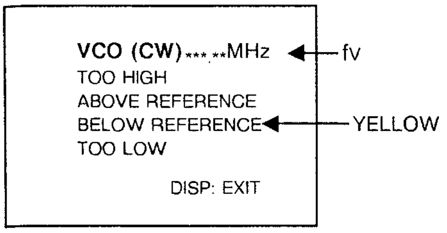
Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 Voltage	**Signal generator** **DC Volt-meter**	**TP-91B(B1)** (TP-91) **TP-91E (⏚)** (TP-E)		1. Receive a whole black signal. 2. Connect a DC voltmeter to TP-91B and TP-91E(⏚). 3. Make sure that the voltage is DC142.5 ± 1.5V.

FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	**Signal generator**		**FOCUS VR** **[In HVT]**	1. Receive a cross-hatch signal. 2. While watching the screen, adjust the FOCUS VR to make the vertical and horizontal lines as fine and sharp as possible. 3. Make sure that when the screen is darkened, the lines remain in good focus.

IF CIRCUIT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VCO	**Remote control unit**		**T010 TRANSF.**	• **Do not make any adjustment unless the adjustment is out of way and you cannot get correct PICTURE.** 1. Select 1.IF from the SERVICE MENU. 2. Press 1 key and select 1.VCO. 3. Select a receivable broadcast channel with the CHANNEL key. 4. Turn the core of T010 TRANSF. until the colour of the characters TOO HIGH displayed on the screen changes from blue to **yellow**. (Step 1) 5. Then slowly turn the core of T010 TRANSF. to the **left** until the colour of the characters BELOW REFERENCE changes from blue to **yellow**. (Step 3) 6. Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly.



Screen display	Step 1 → 2 → 3		
TOO HIGH	**Yellow**	→ Blue	→ Blue
ABOVE REFERENCE	Blue	→ **Yellow**	→ Blue
BELOW REFERENCE	Blue	→ Blue	→ **Yellow**
TOO LOW	Blue	——→	Blue

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of DELAY POINT (AGC)	Remote control unit		DELAY POINT (AGC TAKE-OVER)	1. Receive a black and white signal (colour off). 2. Select 1.IF from the SERVICE MENU. 3. Select 2.DELAY POINT by pressing the 2 key on the remote control. 4. Adjust the PICTURE / SOUND L or R key until video noise disappears. 5. Press the MENU key and memorize the seting value. 6. Turn to other channels and make sure that there are not irregularities.

Setting (adjustment) item	Variable range	Initial setting value
DELAY POINT (AGC TAKE-OVER)	0~63	10

VSM / SSM / PRESET & CENTER ADJUST SETTING

Item	Measuring instrument	Test point	Adjustment part	Description
Setting of VSM PRESET SSM PRESET & CENTER ADJUST	Remote control unit		1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. TINT	(VSM PRESET) 1. Select 5.VSM PRESET from the SERVICE MENU. 2. Select STANDARD with the PICTURE MODE key. 3. Adjust the PICTURE / SOUND UP or DOWN and PICTURE / SOUND L or R key to bring the set values of 1.BRIGHT ~ 5.TINT to the setting values shown in the table. 4. Press the MENU key and memorize the set value. 5. Respectively select the VSM PRESET mode for SOFT, and BRIGHT, and make similar adjustment as in 3 above.
			TREBLE BASS	(SSM PRESET) 6. Select 6. SSM PRESET from the SERVICE MENU. 7. Select STANDARD with the sound mode key. 8. Adjust the PICTURE / SOUND UP or DOWN and L or R key to bring the set values BASS & TREBLE to the setting values as shown in the table. 9. Press the MENU key and memorize the set value. 10. Respectively select the SSM PRESET mode for LIGHT and DYNAMIC, and make similar adjustment as in 8 above.
				(CENTER ADJUST) 11. Select 7. CENTER ADJUST from the SERVICE MENU. 12. Adjust the PICTURE / SOUND UP or DOWN and L or R key to bring the set values BASS and TREBLE to the setting values as show in below table. 13. Press the MENU key and memorize the setting value.

Setting item \ VSM preset mode	BRIGHT	STANDARD	SOFT
1. BRIGHT SETTING VALUE	0	0	0
2. CONT. SETTING VALUE	+ 15	+ 4	-4
3. COLOUR SETTING VALUE	0	0	0
4. SHARP SETTING VALUE	0	0	-3
5. TINT SETTING VALUE	0	0	0

SETTING VALUES OF VSM PRESET

Setting item \ SSM preset mode	DYNAMIC	STANDARD	LIGHT
TREBLE SETTING VALUE	+ 4	0	+ 0
BASS SETTING VALUE	+ 3	0	-8

SETTING VALUES OF SSM PRESET

Setting item \ CENTER ADJUST mode	CENTER
TREBLE SETTING VALUE	+ 3
BASS SETTING VALUE	-1

SETTING VALUES OF CENTER ADJUST

VIDEO/CHROMA CIRCUIT ADJUSTMENT

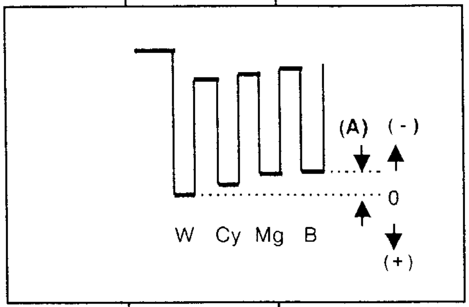
**The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**

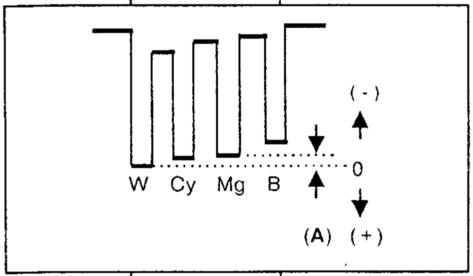
Setting (adjustment) item	Variable range	Initial setting value
1. CUTOFF	ON / OFF	OFF
2. R DRIVE	-31 ~ +32	0
3. G DRIVE	-31 ~ +32	0
4. B DRIVE **(Do not adjust)**	-31 ~ +32	0 (Fixed)
5. BRIGHT	-31 ~ +32	+3
6. CONT.	-46 ~ +17	-5

Setting (adjustment) item / Colour system		Variable range	PAL	SECAM	NTSC 3.58	NTSC 4.43
7. COLOUR initial setting value		-31 ~ +32	+3	+3	+13	(+0)
8. TINT initial setting value	TV	-31 ~ +32	—	—	-1	(+0)
	VIDEO				(+0)	(+0)
9. DELAY TIME initial setting value **(Do not adjust)**	TV	00H ~ 0FH	01H	00H	00H	00H
	C VIDEO		00H	00H	00H	00H
	S VIDEO		01H	00H	00H	00H
10. SHARP		-8 ~ +6	-1	←	←	←

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE (Low light)	**Signal generator** **Remote control unit**		**R. CUT OFF VR (R108)** **G. CUT OFF VR (R107)** **B. CUT OFF VR (R109) [CRT SKT PWB]** **SCREEN VR [In HVT]**	1. Receive a black and white signal (colour off). 2. Select 2.V/C from the SERVICE MENU. 3. Select 1.CUT OFF with the PICTURE / SOUND UP or DOWN key. 4. Show one horizontal line with the PICTURE / SOUND L or R key. With the SCREEN VR, adjust so that the horizontal line will not be too bright. 5. Turn the CUT OFF VR respectively for R, G and B fully to the left (to the left direction when seen from the rear). 6. Gradually turn the SCREEN VR from the left end to the right direction to bring one of the red, green and blue colours faintly visible. 7. By adjusting the CUT OFF VR, bring out the other 2 colours and make one horizontal line visible in white 8. Turn the SCREEN VR and bring one white horizontal line faintly visible. 9. With the L or R key, turnoff 1.CUTOFF screen.
Adjustment of WHITE BALANCE (High light)	**Signal generator** **Remote control unit**		**2. R. DRIVE** **3. G. DRIVE** **4. B. DRIVE** **(Do not adjust)**	1. Receive a black and white signal (colour off). 2. Select 2.V/C with the SERVICE MENU. 3. Select 2.R DRIVE and 3.G DRIVE with the PICTURE / SOUND UP or DOWN key. 4. Change the screen colour to white with the PICTURE / SOUND L or R key. 5. Press the MENU key, and memorize the respectively set values.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB BRIGHT	**Remote control unit**		**5. BRIGHT**	1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 5.BRIGHT with the PICTURE / SOUND UP or DOWN key. 4. Set the initial setting value with the PICTURE / SOUND L or R key. 5. If the brightness is not the best with the initial set value, make fine adjustment until you get the best brightness. 6. Press the MENU key and memorize the set value.
Adjustment of SUB CONT.	**Remote control unit**		**6. CONT.**	1. Receive any broadcast. 2. Select 2.V/C with the SERVICE MENU. 3. Select 6.CONT. with the PICTURE / SOUND UP or DOWN key. 4. Set the initial setting value with the PICTURE / SOUND L or R key. 5. If the contrast is not the best with the initial set value, make fine adjustment until you get the best contrast. 6. Press the MENU key and memorize the set value.
Adjustment of SUB COLOUR I	**Remote control unit**		**7. COLOUR**	**[Method of adjustment without using measuring equipment]**
			PAL COLOUR	**(PAL COLOUR)** 1. Receive a PAL broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 7.COLOUR with the PICTURE / SOUND UP or DOWN key. 4. Set the initial setting value for PAL COLOUR with the PICTURE / SOUND L or R key. 5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour. 6. Press the MENU key and memorize the set value.
			SECAM COLOUR	**(SECAM COLOUR)** 7. Receive a SECAM broadcast. Make fine adjustment of SECAM COLOUR as previously.
			NTSC 3.58 COLOUR	**(NTSC 3.58 COLOUR)** 8. Receive a NTSC 3.58MHz broadcast. 9. Make similar fine adjustment of NTSC3.58 COLOUR as previously.
				(NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the same value as NTSC 3.58.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR II	Signal generator Oscilloscope Remote control unit	TP-47B TP-E(⏚) [CRT SOCKET PWB]	7. COLOUR	**[Method of adjustment using measuring equipment]**
			PAL COLOUR 	**(PAL COLOUR)** 1. Receive a PAL full field colour bar signal (75% white). 2. Select 2.V/C from SERVICE MENU. 3. Select 7.COLOUR with the PICTURE / SOUND UP or DOWN key. 4. Set the initial setting value of PAL COLOUR with the PICTURE / SOUND L or R key. 5. Connect the oscilloscope between TP-47B and TP-E. 6. Adjust PAL COLOUR and bring the value of **(A)** in the illustration to -6V (voltage difference between white and blue). 7. Press the MENU key and memorize the seting value.
			SECAM COLOUR	**(SECAM COLOUR)** 1. Receive a SECAM full field colour bar signal (75% white). 2. Set the initial setting value of SECAM COLOUR with the PICTURE / SOUND L or R key. 3. Adjust SECAM COLOUR and bring the value of (A) of the illustration to -4V (voltage difference between white and blue). 4. Press the MENU key and memorize the set value.
			NTSC 3.58 COLOUR	**(NTSC 3.58 COLOUR)** 1. Receive a NTSC 3.58 full field colour bar (75% white) signal. 2. Set the initial setting value of NTSC3.58 COLOUR with the PICTURE / SOUND L or R key. 3. Adjust NTSC3.58 COLOUR and bring the value of (A) of the illustration to +4V (voltage difference between white and blue). 4. Press the MENU key and memorize the set value.
				(NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the same value as NTSC 3.58.
Adjustment of SHARP	Remote control unit		**10.SHARP**	1. Receive any broadcast. 2. Select 2.V/C with the SERVICE MENU. 3. Select 10.SHARP. with the PICTURE / SOUND UP or DOWN key. 4. Set the initial setting value with the PICTURE / SOUND L or R key. 5. Press the MENU key and memorize the set value.

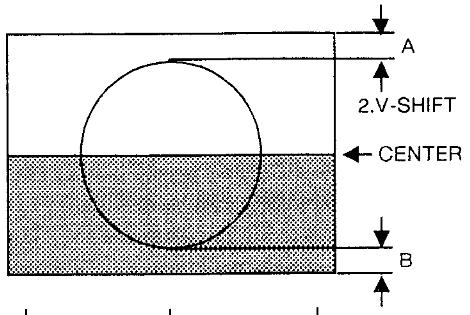
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB TINT I	**Remote control unit**		8. TINT	**[Method of adjustment without using measuring equipment]**
			NTSC 3.58 TINT (TV)	[NTSC 3.58 TINT(TV)] 1. Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white). 2. Select 2.V/C from the SERVICE MENU. 3. Select 8.TINT with the PICTURE / SOUND UP or DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the PICTURE / SOUND L or R key. 5. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint. 6. Press the MENU key and memorize the set value.
				[NTSC 4.43 TINT (TV/VIDEO) & NTSC 3.58 TINT (VIDEO)] When NTSC 3.58(TV) is set, NTSC 4.43(TV / VIDEO) & NTSC 3.58(VIDEO) will be automatically set at the respective values.
Adjustment of SUB TINT II	**Signal generator** **Oscilloscope** **Remote control unit**	**TP-47B** **TP-E (⏚)** **(CRT SOCKET PWB)**	8. TINT	**[Method of adjustment using measuring equipment]**
			NTSC 3.58 TINT (TV)	[NTSC 3.58 TINT (TV)] 1. Receive a NTSC 3.58 colour bar signal (full field colour bar 75% white). 2. Select 2.V/C from the SERVICE MENU. 3. Select 8.TINT with the PICTURE / SOUND UP or DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the PICTURE / SOUND L or R key. 5. Connect the oscilloscope between TP-47B and TP-E. 6. Adjust NTSC3.58 TINT to bring the value of (A) of the illustration to -8V (voltage difference between white and magenta). 7. Press the MENU key and memorize the setting value.
				[NTSC 4.43 TINT (TV / VIDEO) & NTSC 3.58 TINT (VIDEO)] When NTSC 3.58(TV) is set, NTSC 4.43(TV / VIDEO) & NTSC 3.58(VIDEO) will be automatically set at the respective values.

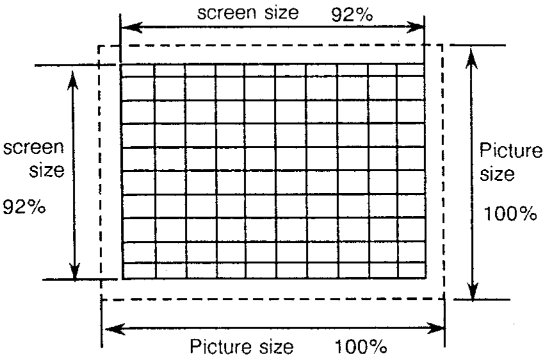
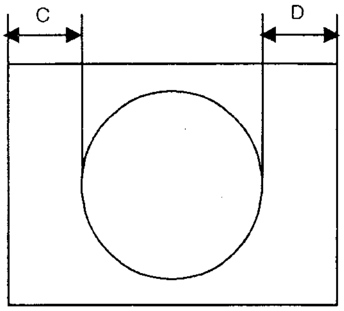
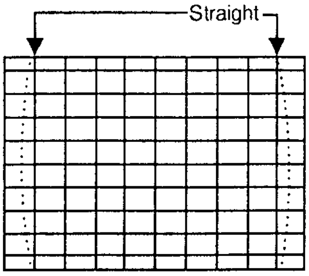
DEFLECTION CIRCUIT ADJUSTMENT

- There are 2 modes of adjustment —— ① 50Hz mode and ② 60Hz mode —— depending upon the kind of signals (VERTICAL FREQUENCY 50Hz / 60Hz) .
- When adjusted in mode ①, mode ② will be automatically set.

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial set values.

Setting (adjustment) item	Adjustment name	Variable range	AV-G29MS / AV-G29MH Initial setting value	
			50Hz mode	60Hz mode
1. V-SLOPE	Vertical hight (Size of bottom side of screen)	-31~ +32	+0	(-1)
2. V-SHIFT	Vertical center	-31~ +32	+0	(+0)
3. V-SIZE	Vertical hight	-31~ +32	-8	(+0)
4. H-CENT	Horizontal center	-31~ +32	+7	(+10)
5. H-SIZE	Horizontal width	-31~ +32	+13	(+0)
6. EW-PIN	Side pin correction	-31~ +32	+15	(+2)
7. TRAPEZ	Trapezoidal distortion correction	-31~ +32	-9	(-3)
8. V-S.CR	Vertical hight correction	-31~ +32	+0	(+0)
9. EW-COR	Side pin four corner correction	-31~ +32	+2	(+3)

Item	Measuring instrument	Test point	Adjustment part	Description
1. Adjustment of VERTICAL SLOPE	Signal generator Remote control unit		1. V-SLOPE  	[①50Hz mode] 1. Receive a circle pattern signal of vertical frequency 50Hz. 2. Select 4.DEF from the SERVICE MENU. 3. Select 1.V-SLOPE with the PICTURE / SOUND UP or DOWN key. 4. Set the initial setting value of V-SLOPE (50Hz mode) with the PICTURE / SOUND L or R key. 5. Adjust V-SLOPE and make the screen's center line and the blanking line coincide.
2. Adjustment of VERTICAL SHIFT			2. V-SHIFT	6. Select 2.V-SHIFT and set the initial setting value. 7. Adjust V-SHIFT to make **A = B**. 8. Press the MENU key and memorize the set value.

Item	Measuring instrument	Test point	Adjustment part	Description
3. Adjustment of VERTICAL SIZE  screen size 92% screen size 92% Picture size 100% Picture size 100%			**3. V-SIZE**	9. Receive a cross-hatch signal. 10. Adjust 3.V-SIZE and set the initial setting value. 11. Adjust V-SIZE and make the vertical screen size 92% of the picture size. 12. Press the MENU key and memorize the set value.
4. Adjustment of H. CENTER  			**4. H-CENT**	13. Receive a circle pattern signal. 14. Select 4.H-CENT and set the initial setting value. 15. Adjust H-CENT to make C = D. 16. Press the MENU key and memorize the set value.
5. Adjustment of H. SIZE			**5. H-SIZE**	17. Receive a cross-hatch signal. 18. Select 5.H-SIZE and set the initial setting value. 19. Adjust H-SIZE and make the horizontal screen size 92% of the picture size. 20. Press the MENU key and memorize the set value.
6. Adjustment of EW-PIN  			**6. EW-PIN**	21. Select 6.EW-PIN and set the initial setting value. 22. Adjust EW-PIN and make the 1st vertical lines at the left and right edges of the screen straight. Also make sure that the 2nd vertical lines are also straight.

Item	Measuring instrument	Test point	Adjustment part	Description
7. Adjustment of TRAPEZ			**7. TRAPEZ**	23. Select 7.TRAPEZ and set the initial setting value. 24. Adjust TRAPEZ and bring the vertical lines at the right and left edges of the screen in parallel.
8. Adjustment of V-S. CR			**8. V-S. CR**	25. Select 8.V-S. CR and set the initial setting values. 26. Adjust V-S. CR and make the gaps between the horizontal lines same.
9. Adjustment of EW-COR			**9. EW-COR**	27. Select 9.EW-COR and set the initial setting values. 28. Adjust EW-COR and make the vertical lines at the four corners of the screen straight. 29. Press the MENU key and memorize the set values.
				30. Make sure that the adjustement is properly done on the screen of ② 60Hz mode.

AUDIO CIRCUIT

- **Do not touch 3.AUDIO (1. CONC LIMIT, 2. A2 ID THR, 3. SOUND SYSTEM) of the SERVICE MENU as it requires no adjustment.**

3. AUDIO

Setting (adjustment) item	Variable range	Initial setting value (fixed)
1. CONC LIMIT **(Do not adjust)**	00H~FFH	0AH
2. A2 ID THR **(Do not adjust)**	00H~FFH	0AH
3. SOUND SYSTEM **(Do not adjust)**	————	————

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines —— in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .
- As a rule, the resistors and capacitors which are indicated as shown in "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board .
  When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" .

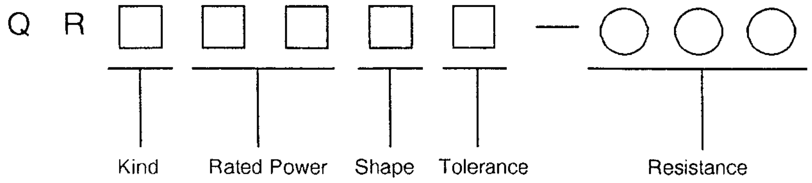
ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% - 10%	+50% - 10%	+80% - 20%	+100% - 0%

HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS

■ RESISTOR


Q R
Kind
Rated Power
Shape
Tolerance
Resistance

Symbol	Part Name
C	COMP.R
D	C R
S	CH MG R

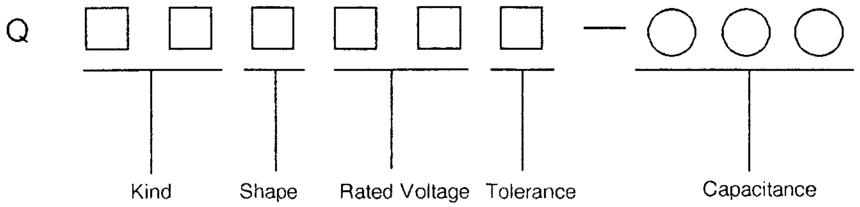
Symbol	Rated Power
0 1	1 w
1 2	1/2 w
1 4	1/4 w
1 6	1/6 w
1 8	1/8 w

Symbol	Shape
1	Straight lead
8	Chip

Indicate with first two-figure expressed by Ω and following 0.
please note that,in case of resistance less than 10 Ω, a letter "R"will be effective as point.

EX.
2.2 Ω = 2R2
470 Ω = 47 × 10^1 → 471
150kΩ = 15 × 10^4 → 154

■ CAPACITOR


Q
Kind
Shape
Rated Voltage
Tolerance
Capacitance

Symbol	Part Name
CS	C CAP.
CS	CH C CAP.
ET	E CAP.
FM	M CAP.

5Figure / 6Figure	0	1	2
A		10V	100V
C		16V	160V
D			200V
E		25V	250V
H		50V	500V
J	6.3V	63V	
V		35V	

Indicate with first two-figure expressed by pF and following 0.
Please note that,in case of capacitance less than 10 pF a letter "R" will be effective as point.

EX
5pF = 5R0
1000pF = 10 × 10^2 → 102
47μF = 47 × 10^6 → 476

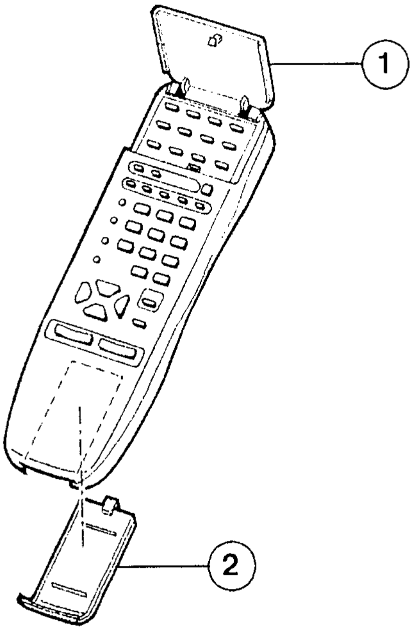
Symbol	Shape
1	Straight lead
1	Leads in the same direction
8	Chip
A	Leads in the same direction (compact part)

USING PRINTED WIRING BOARD ASS'Y No.

MODEL NO. PRINTED WIRING BOARED ASS'Y No.	AV-G29MS	AV-G29MH
MAIN PW BOARD ASS'Y	SKA-1001A-H2	←
CRT SOCKET PW BOARD ASS'Y	SKA-3006A-H2	←
FRONT CONTROL PW BOARD ASS'Y	SKA-8005A-H2	←
LINE FILTER PW BOARD ASS'Y	SKA-9341A-H2	←
AV A2 NICAM PW BOARD ASS'Y	SKA0A001A-H2	←
TELETEXT PW BOARD ASS'Y	SKA0T001A-H2	————

REMOTE CONTROL UNIT [RM-C665-1H (AV-G29MS) RM-C666-1H (AV-G29MH)]

No.	PARTS NAME	PARTS No.	
		RM-C665-1H (AV-G29MS)	RM-C666-1H (AV-G29MH)
1	COVER	UR52UB1003A	←
2	BATTERY COVER	UR52EC1001B	←

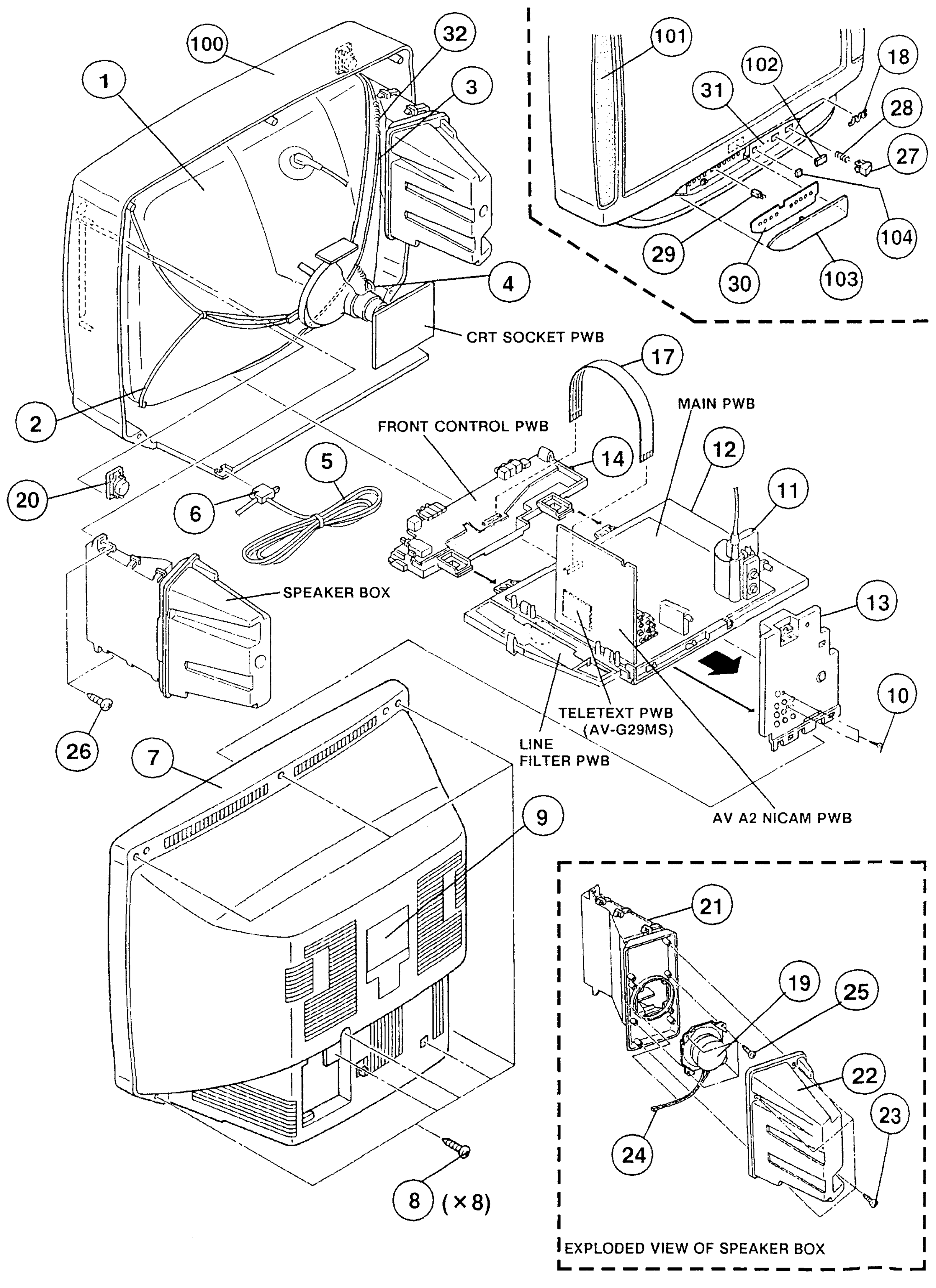


[For AV-G29MS (RM-C665-1H)]

EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	1	A68ESF002X11	PICTURE TUBE(ITC)	V01	
⚠	2	CELD047-002J6N	DEG.COIL	L01	
	3	CHGB0020-0B-FH	BRAIDED ASSY		
	4	CHGB0016-0C-FH	SUB BRAIDED ASSY		
⚠	5	QMP4060-200JG	POWER CORD	(AV-G29MS)	
⚠	5	QMP51M0-200K	POWER CORD	(AV-G29MH)	
	6	CM47016-001-H	POWER CORD CLAMP		
⚠	7	CM12663-B02-VH	REAR COVER		
	8	GBSF4020M-H	W TAP SCREW	(×8)	
⚠	9	CM22925-001	RATING LABEL		
	10	SBSF3012M-H	TAP SCREW	(×2)For AV TERMI.BASE	
⚠	11	CJ28241-00AJ1	H.V.TRANSF.	T1552	
	12	CM12669-C01-VH	CHASSIS BASE		
	13	CM12671-B01-H	AV TERMINAL BASE		
	14	CM12640-004-H	CONTROL BASE		
	17	CHFB125-12BD	FFC WIRE		
	18	CM48006-002	JVC MARK		
	19	CEBSF10P-02KJ6	SPEAKER	(×2)SP01,SP02	
	20	CEBSF02F-02KJ6	SPEAKER	(×2)SP03,SP04	
	21	2528MXSP-STE	DOME SP ASSY	(×2)	
	22	CM12686-001-E	DOME BOX	(×2)	
	23	GBSF4016Z-H	TAPPING SCREW	(×8)For DOME BOX	
	24	CHGS0033-0B	SP WIRE ASSY	(×2)	
	25	GBSF4016Z-H	TAPPING SCREW	(×8)For SP01,SP02	
	26	GBSF4016Z-H	TAPPING SCREW	(×4)For SP03,SP04	
	27	CM36212-A01-H	POWER KNOB		
	28	CM35235-009-H	SPRING		
	29	CM48001-00A	DOOR LATCH		
	30	CM36211-002-H	CONTROL SHEET		
	31	CM36248-B01-H	LED LENS		
	32	A48457-3-H	SPRING		
⚠	100	CM12661-A0E-H	FRONT CABI.ASSY	Inc.No.101～104 (AV-G29MS)	
⚠	100	CM12661-B0B-H	FRONT CABI.ASSY	Inc.No.101～104 (AV-G29MH)	
	101	CM12664-A01-H	PUNCH METAL	(×2)	
	102	CM36247-001-H	REMOCON WINDOW		
	103	CM22893-005-H	DOOR	(AV-G29MS)	
	103	CM22893-A02-H	DOOR	(AV-G29MH)	
	104	CM36246-001-H	EE WINDOW		

EXPLODED VIEW


100
1
32
3
101
102
18
31
28
27
104
29
30
103
4
CRT SOCKET PWB
2
17
MAIN PWB
FRONT CONTROL PWB
14
12
5
11
20
6
SPEAKER BOX
13
10
TELETEXT PWB
(AV-G29MS)
LINE
FILTER PWB
26
7
AV A2 NICAM PWB
9
21
19
25
22
23
24
8 (×8)
EXPLODED VIEW OF SPEAKER BOX

PRINTED WIRING BOARD ASS'Y PARTS LIST

MAIN PW BOARD ASS'Y [(SKA-1001A-H2) : AV-G29MS / AV-G29MH]

⚠	Symbol No.	Part No.	Part Name	Description		Local
	RESISTOR					
	R1401	QRV141F-2701AY	MF R	2.7kΩ	1/4W	F
	R1402-03	QRD123J-1R0SX	C R	1 Ω	1/2W	J
	R1405	QRG019J-221S	OM R	220 Ω	1W	J
	R1451	QRD123J-470SX	C R	47 Ω	1/2W	J
	R1503	QRD123J-152SX	C R	1.5kΩ	1/2W	J
	R1504	QRG029J-332	OM R	3.3kΩ	2W	J
	R1505	QRG029J-392	OM R	3.9kΩ	2W	J
	R1535	QRD123J-152SX	C R	1.5kΩ	1/2W	J
	R1552	QRG029J-103	OM R	10kΩ	2W	J
⚠	R1571	QRD149J-2R2S	C R	2.2 Ω	1/4W	J
	R1572	QRG019J-122S	OM R	1.2kΩ	1W	J
⚠	R1585	QRV141F-1501AY	MF R	1.5kΩ	1/4W	F
⚠	R1586	QRV141F-8451AY	MF R	8.45kΩ	1/4W	F
	R1593	QRD123J-392SX	C R	3.9kΩ	1/2W	J
⚠	R1605	QRD143J-2R2SX	C R	2.2 Ω	1/4W	J
⚠	R1608	QRD143J-2R2SX	C R	2.2 Ω	1/4W	J
	R1902	QRF204K-3R3	UNF R	3.3 Ω	20W	K
	R1931	QRG039J-563	OM R	56kΩ	3W	J
	R1932-33	QRG029J-823A	OM R	82kΩ	2W	J
	R1935	QRD123J-103SX	C R	10kΩ	1/2W	J
⚠	R1939	QRD149J-101S	C R	100 Ω	1/4W	J
⚠	R1940	QRD149J-392S	C R	3.9kΩ	1/4W	J
	R1943	QRG019J-120S	OM R	12 Ω	1W	J
	R1945	QRM059J-R15	MP R	0.15 Ω	5W	J
	R1946	QRX019J-R68S	MF R	0.68 Ω	1W	J
⚠	R1947	QRD149J-102S	C R	1kΩ	1/4W	J
	R1951	QRD123J-102SX	C R	1kΩ	1/2W	J
	R1954	QRD123J-561SX	C R	560 Ω	1/2W	J
	R1956	QRD123J-103SX	C R	10kΩ	1/2W	J
⚠	R1957	QRD149J-8R2S	C R	8.2 Ω	1/4W	J
	R1971	QRF103J-3R3	UNF R	3.3 Ω	10W	J
	R1972	QRD123J-562SX	C R	5.6kΩ	1/2W	J
	R1973	QRD123J-122SX	C R	1.2kΩ	1/2W	J
⚠	R1991	QRZ0057-825	C R	8.2MΩ	1W	J
	CAPACITOR					
	C1021	QCT25CH-120AZ	C CAP.	12 pF	50V	J
	C1022	QFLC1HJ-103MZ	M CAP.	0.01 μF	50V	J
	C1100	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J
	C1101	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z
	C1105	QFLC1HJ-103MZ	M CAP.	0.01 μF	50V	J
	C1106	QFLC1HJ-473MZ	M CAP.	0.047 μF	50V	J
	C1109	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J
	C1110	QFLC1HJ-473MZ	M CAP.	0.047 μF	50V	J
	C1111	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J
	C1113	QFLC1HJ-103MZ	M CAP.	0.01 μF	50V	J
	C1114	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J
	C1115	QFN31HJ-392ZJ1	M CAP.	3900 pF	50V	J
	C1119-20	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J
	C1121-23	QFLC1HJ-104MZ	M CAP.	0.1 μF	50V	J
	C1126	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z
	C1127	QFN31HJ-102ZJ1	M CAP.	1000 pF	50V	J
	C1131	QFN31HJ-102ZJ1	M CAP.	1000 pF	50V	J
	C1132	QFLC1HJ-224MZ	M CAP.	0.22 μF	50V	J
	C1133	QFLC1HJ-104MZ	M CAP.	0.1 μF	50V	J
	C1182	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J
	C1183	QEN61CM-336Z	BP E CAP.	33 μF	16V	M
	C1186-87	QEN61CM-106Z	BP E CAP.	10 μF	16V	M
	C1188	QCT25CH-390AZ	C CAP.	39 pF	50V	J
	C1311-13	QFLC1HJ-104MZ	M CAP.	0.1 μF	50V	J

⚠	Symbol No.	Part No.	Part Name	Description	Local
	CAPACITOR				
	C1403	QFLC2AK-823MZ	M CAP.	0.082 μF 100V K	
	C1404	QFN32AK-224J1	M CAP.	0.22 μF 100V K	
	C1405	QFLC2AK-823MZ	M CAP.	0.082 μF 100V K	
	C1407	QFLC2AK-563MZ	M CAP.	0.056 μF 100V K	
	C1408	QFLC1HJ-393MZ	M CAP.	0.039 μF 50V J	
	C1409	QFN32AK-102ZJ1	M CAP.	1000 pF 100V K	
	C1451	QFLC1HJ-103MZ	M CAP.	0.01 μF 50V J	
	C1452	QFLC1HJ-393MZ	M CAP.	0.039 μF 50V J	
	C1491	QFV71HJ-104MZ	TF CAP.	0.1 μF 50V J	
	C1503	QETC2CM-105Z	E CAP.	1 μF 160V M	
	C1531	QEZ0195-475MZ	E CAP.	0.47 μF 50V M	
⚠	C1551	QFZ0117-4001S	MPP CAP.	4000 pF 1.4kVH ±2.5%	
⚠	C1552	QFZ0117-1002S	MPP CAP.	0.01 μF 1.4kVH ±2.5%	
	C1553	QFP32GJ-273M	PP CAP.	0.027 μF 400V J	
⚠	C1554	QFZ0119-684S	MPP CAP.	0.68 μF 200V ±3%	
⚠	C1555	QFZ0119-534S	MPP CAP.	0.53 μF 200V ±3%	
	C1556	QETC2EM-475Z	E CAP.	4.7 μF 250V M	
	C1565	QFN31HJ-222ZJ1	M CAP.	2200 pF 50V J	
	C1566	QFN31HJ-102ZJ1	M CAP.	1000 pF 50V J	
	C1577	QETB1JM-227	E CAP.	220 μF 63V M	
	C1578	QETC2EM-475Z	E CAP.	4.7 μF 250V M	
	C1582	QETC2AM-106Z	E CAP.	10 μF 100V M	
	C1591	QFV71HJ-104MZ	TF CAP.	0.1 μF 50V J	
	C1602-03	QEN61HM-105Z	BP E CAP.	1 μF 50V M	
	C1609	QETB1VM-108	E CAP.	1000 μF 35V M	
	C1610	QFLC1HJ-124MZ	M CAP.	0.12 μF 50V J	
	C1614	QFLC1HJ-124MZ	M CAP.	0.12 μF 50V J	
	C1701	QFLC1HJ-104MZ	M CAP.	0.1 μF 50V J	
	C1705	QFLC1HJ-104MZ	M CAP.	0.1 μF 50V J	
	C1707	QCT25CH-680AZ	C CAP.	68 pF 50V J	
	C1708	QFLC1HJ-104MZ	M CAP.	0.1 μF 50V J	
	C1711	QFN31HJ-102ZJ1	M CAP.	1000 pF 50V J	
	C1712	QCT25CH-820AZ	C CAP.	82 pF 50V J	
⚠	C1901	QCZ9036-471M	C CAP.	470 pF AC400V K	
⚠	C1902	QCZ9036-471M	C CAP.	470 pF AC400V K	
⚠	C1903	QCZ9057-472M	C CAP.	4700 pF AC400V Z	
⚠	C1904	QCZ9057-472M	C CAP.	4700 pF AC400V Z	
⚠	C1905	QCZ9057-472M	C CAP.	4700 pF AC400V Z	
	C1911	QEZ0111-397R	E CAP.	390 μF 400V M	
	C1931	QCF22HP-103M	CH C CAP.	0.01 μF 500V P	
	C1932	QCZ0122-391U	C CAP.	390 pF 2kV K	
	C1933	QCZ0122-151U	C CAP.	150 pF 2kV K	
	C1934	QCZ0122-102U	C CAP.	1000 pF 2kV K	
	C1937	QETC2AM-106Z	E CAP.	10 μF 100V M	
	C1938	QEHC1EM-227MZ	E CAP.	220 μF 25V M	
	C1940	QEHC1CM-227MZ	E CAP.	220 μF 16V M	
	C1941	QFLC2AJ-473MZ	M CAP.	0.047 μF 100V J	
	C1971	QCZ0122-152U	C CAP.	1500 pF 2kV K	
	C1975	QEZ0203-227	E CAP.	220 μF 160V	
	C1976	QETC2AM-476Z	E CAP.	47 μF 100V M	
	C1983	QEN61HM-225Z	BP E CAP.	2.2 μF 50V M	
	C1985	QETC0JM-107Z	E CAP.	100 μF 6.3V M	
	C1986	QETB2CM-107	E CAP.	100 μF 160V M	
⚠	C1991	QCZ9036-222M	C CAP.	2200 pF AC400V M	
	TRANSFORMER				
	T1010	CELT001-301J1	C.WAVE TRANSF.		
	T1451	CE42556-001J1	PULSE TRANSF.		
	T1452	CE42555-001J1	SATURABLE REACT		
	T1501	CE42034-002	H.DRIVE TRANSF.		
	T1551	CE42549-001J1	BRIGE COIL		
⚠	T1552	CJ28241-00AJ1	H.V.TRANSF.		
⚠	T1931	CETS035-001J3	SWITCH.TRANSF.		

⚠	Symbol No.	Part No.	Part Name	Description	Local
	COIL				
	L1002-03	CELP026-8R2Z	PEAKING COIL	8.2 μH	
	L1101	CELP038-R82Z	PEAKING COIL	0.82 μH	
	L1131	CELP026-470Z	PEAKING COIL	47 μH	
	L1150	CELP037-100	PEAKING COIL	10 μH	
	L1151	CELP026-8R2Z	PEAKING COIL	8.2 μH	
	L1152	CELP037-120	PEAKING COIL	12 μH	
	L1153	CELP037-8R2	PEAKING COIL	8.2 μH	
	L1154	CELP037-2R2	PEAKING COIL	2.2 μH	
	L1181	CELP027-330Z	PEAKING COIL	33 μH	
	L1401	CELC901-024J6	HEATER CHOKE		
	L1451	CE41197-00G	WIDTH COIL		
	L1452	CELC058-331Z	CHOKE COIL		
	L1531	CELC053-802	CHOKE COIL		
	L1551	CELL013-003	LINIARITY COIL		
	L1571	CELC901-093J6	HEATER CHOKE		
	L1704	CELP027-8R2Z	PEAKING COIL	8.2 μH	
	L1705	CELP026-8R2Z	PEAKING COIL	8.2 μH	
	L1971-72	CELC058-560Z	CHOKE COIL		
	DIODE				
	D1102	MTZJ33(A)-T2	ZENER DIODE		
	D1131	1SS133-T2	SI.DIODE		
	D1150	1SS133-T2	SI.DIODE		
	D1151-52	1SS85-T2	SI.DIODE		
	D1210	MTZJ5.1(A)-T2	ZENER DIODE		
	D1212	1SS133-T2	SI.DIODE		
	D1215	1SS133-T2	SI.DIODE		
	D1301	1SS133-T2	SI.DIODE		
	D1405	MTZJ33(A)-T2	ZENER DIODE		
	D1406	MTZJ24(B)-T2	ZENER DIODE		
	D1409	1SS120-T2	SI.DIODE		
	D1451	1SS133-T2	SI.DIODE		
	D1452-53	ERA81-004-T2	SI.DIODE		
	D1501	1SS81-T5	SI.DIODE		
	D1531	MTZJ33(B)-T2	ZENER DIODE		
	D1551	RH3G-C1	SI.DIODE		
	D1552	RU3AM-LFC4	SI.DIODE		
	D1553	RGP10J-T3	SI.DIODE		
	D1557	1SS146-T2	SI.DIODE		
	D1558	MTZJ6.8(A)-T2	ZENER DIODE		
	D1559-60	1SS133-T2	SI.DIODE		
	D1561	MTZJ11(A)-T2	ZENER DIODE		
	D1571	RGP10J-T3	SI.DIODE		
	D1572	RL2Z-LFC4	SI.DIODE		
	D1573	RGP10J-T3	SI.DIODE		
	D1574	RH1S-T3	SI.DIODE		
	D1581	MTZJ4.3(A)-T2	ZENER DIODE		
	D1582	MTZJ7.5S-T2	ZENER DIODE		
	D1583	1SS146-T2	SI.DIODE		
	D1591	MTZJ15(A)-T2	ZENER DIODE		
	D1592	RGP10J(C1)	SI DIODE		
	D1603	1SS133-T2	SI.DIODE		
	D1605	1SS133-T2	SI.DIODE		
	D1608-10	1SS133-T2	SI.DIODE		
	D1701-02	1SS133-T2	SI.DIODE		
	D1703	MTZJ5.6(A)-T2	ZENER DIODE		
⚠	D1901	RBV-406M	BRIDGE DIODE		
	D1931	RU1C-LFC4	SI.DIODE		
	D1932	RGP10J(C1)-T3	SI.DIODE		
	D1933	AU01Z-T2	SI.DIODE		
	D1934	RGP10J-T3	SI.DIODE		
	D1935	1SS133-T2	SI.DIODE		
	D1936	MTZJ12(C)-T2	ZENER DIODE		
	D1937	MTZJ7.5(B)-T2	ZENER DIODE		

⚠	Symbol No.	Part No.	Part Name	Description	Local
	DIODE				
	D1938	EG1Z-T3	SI.DIODE		
	D1939	MTZJ7.5(C)-T2	ZENER DIODE		
	D1940	1SS133-T2	SI.DIODE		
	D1941	MTZJ15(A)-T2	ZENER DIODE		
	D1971	RU30A-C1	SI.DIODE		
	D1972	RGP10J(C1)-T3	SI.DIODE		
	D1973-74	RU3YX-LFC4	SI.DIODE		
	D1975	MTZJ7.5(B)-T2	ZENER DIODE		
	D1976	RU3YX-LFC4	SI.DIODE		
	TRANSISTOR				
	Q1149	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1150	DTC124ESA-T	DIGI.TRANSISTOR		
	Q1151-52	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1153	2SA933AS(QR)-T	SI.TRANSISTOR		
	Q1154	2SC5083(L-P)-T	SI.TRANSISTOR		
	Q1155	DTC124ESA-T	DIGI.TRANSISTOR		
	Q1156	2SC5083(L-P)-T	SI.TRANSISTOR		
	Q1157-58	2SA933AS(QR)-T	SI.TRANSISTOR		
	Q1159	DTC124ESA-T	DIGI.TRANSISTOR		
	Q1160	2SA933AS(QR)-T	SI.TRANSISTOR		
	Q1161	DTC124ESA-T	DIGI.TRANSISTOR		
	Q1162-64	DTC124ES-T	DIGI.TRANSISTOR		
	Q1179	2SA933AS(QR)-T	SI.TRANSISTOR		
	Q1180-83	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1184	DTC124ES-T	DIGI.TRANSISTOR		
	Q1210	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1212	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1310-11	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1401	2SK301(Q)-T	F.E.T.		
	Q1451-52	2SC2655(Y)-T	SI.TRANSISTOR		
	Q1501	BSN274	F.E.T.		
	Q1531	2SB941A(QP)	SI.TRANSISTOR		
⚠	Q1551	2SD2348-LB	SI.TRANSISTOR	H.OUT	
	Q1581	2SA933AS(QR)-T	SI.TRANSISTOR		
	Q1582	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1601	2SA933AS(QR)-T	SI TRANSISTOR		
	Q1602-03	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1604-05	DTC144ES-T	DIGI.TRANSISTOR		
	Q1702	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q1931	2SD1853-T	SI.TRANSISTOR		
	Q1932	2SA1013(O)-T	SI.TRANSISTOR		
	Q1933	2SC2240(GB)-T	SI.TRANSISTOR		
	Q1934	DTC144ES-T	DIGI.TRANSISTOR		
	Q1935	2SA966(OY)-T	SI.TRANSISTOR		
	Q1936	DTC144GS-T	DIGI.TRANSISTOR		
	Q1971	2SA949(Y)C1	SI.TRANSISTOR		
	IC				
	IC1101	TDA8366	I.C.(MONO-ANA)		
	IC1102	TDA4665	I.C.(MONO-ANA)		
	IC1103	TDA8395	I.C.(MONO-ANA)		
	IC1104	CX20125	I.C.(DIGI.OTHER)		
	IC1310	AN5860	I.C(MONO-ANA)		
	IC1401	TDA8350Q	I.C.(MONO-ANA)		
	IC1571	KIA7805PI	I.C.(MONO-ANA)		
	IC1651	TA8216H	I.C.(MONO-ANA)		
	IC1701	L78LR05E-MA	I.C.(MONO-ANA)		
	IC1702	M37201M6-B49SP	I C		
	IC1703	AT24C08 -G29MS	I.C.(EP-ROM)	(SERVICE)	
	IC1931	STR-S6709	I.C.(HYBRID)		
⚠	IC1932	TLP721F(GR)	I.C.(PH.COUPLER)		
	IC1933	SE135N	I.C.(HYBRID)		
	IC1971	AN7808F	I.C.(MONO-ANA)		
	IC1972	AN7812F	I.C.(MONO-ANA)		

⚠	Symbol No.	Part No.	Part Name	Description	Local
	OTHERS				
	CF1100	MKT39.5MA100P	CERAMIC FILTER		
	CF1101	MKT30.9MA100P	CERAMIC FILTER		
	CF1104	MKT33.5MA100P	CERAMIC TRAP		
	CF1151	TPS5.5MW	CERAMIC FILTER		
	CF1152	TPS6.5MB	CERAMIC FILTER		
	CF1153	TPSH6.0MB	CERAMIC FILTER		
	CF1154	EFCWS4504A	CERAMIC FILTER		
	CN100A	CHC108N-25T-A	FFC CONNECTOR		
⚠	CP1571	ICP-N20-Y	I.C.PROTECT		
⚠	CP1972	ICP-N38-Y	I.C.PROTECT		
⚠	CP1973	ICP-N75-Y	I.C.PROTECT		
⚠	FR1401	QRH127J-4R7M	F R	4.7 Ω 1/2W J	
	FR1531	QRH027J-270M	F R	27 Ω 2W J	
⚠	FR1572	QRH027K-R82M	F R	0.82 Ω 2W K	
⚠	FR1573	QRH127J-6R8M	F R	6.8 Ω 1/2W J	
⚠	FR1575	QRZ0054-4R7M	F R	4.7 Ω 1/4W J	
⚠	FR1931	QRZ0054-470M	F R	47 Ω 1/4W J	
⚠	FR1932	QRH127J-470M	F R	47 Ω 1/2W J	
	K1931	CE42050-001Z	CORE		
	K1971-73	CE42050-001Z	CORE		
	SF1101	CE41099-601	SAW FILTER		
	UV1001	CEEM564-B01	TUNER		
	X1101	CE40749-001J2	CRYSTAL		
	X1102	CE40668-001	CRYSTAL		
	X1701	CST4.00MGW-T2	CERAMIC RESONATO		

CRT SOCKET PW BOARD ASS'Y [(SKA-3006A-H2) : AV-G29MS / AV-G29MH]

⚠	Symbol No.	Part No.	Part Name	Description	Local
	VARIABLE RESISTOR				
	R3107	QVPE805-302H	V R(G CUT OFF)	3kΩ B	
	R3108	QVPE805-302H	V R(R CUT OFF)	3kΩ B	
	R3109	QVPE805-302H	V R(B CUT OFF)	3kΩ B	
	RESISTOR				
	R3116-18	QRG029J-183A	OM R	18kΩ 2W J	
	R3119-21	QRG029J-153A	OM R	15kΩ 2W J	
	R3125-27	QRZ0111-102	C R	1kΩ 1/2W	
	R3131	QRZ0111-474	C R	470kΩ 1/2W	
⚠	R3318	QRD149J-100S	C R	10 Ω 1/4W J	
	R3329	QRG029J-391A	OM R	390 Ω 2W J	
	CAPACITOR				
	C3106	QFLC1HJ-104MZ	M CAP.	0.1μF 50V J	
	C3113	QCZ0131-472A	C CAP.	4700pF 2kV K	
	C3114	QETC2EM-475Z	E CAP.	4.7μF 250V M	
	C3116	QCZ0131-472A	C CAP.	4700pF 2kV K	
	C3304	QFLC1HK-103MZ	M CAP.	0.01μF 50V K	
	C3308	QETC2CM-106Z	E CAP.	10μF 160V M	
	C3310	QETC2CM-106Z	E CAP.	10μF 160V M	
	C3314	QETC0JM-107Z	E CAP.	100μF 6.3V M	
	COIL				
	L3101-03	CELP055-151Z	PEAKING COIL	150μH	
	L3302	CELP026-150Z	PEAKING COIL	15μH	
	DIODE				
	D3152-55	1SS353-X	SI.DIODE		
	D3159	1SS353-X	SI.DIODE		
	D3301	1SS353-X	SI.DIODE		
	D3302-03	RH1S-T3	SI.DIODE		
	TRANSISTOR				
	Q3101-03	2SC1815(YG)-T	SI.TRANSISTOR		
	Q3104-06	2SC4544-C1	SI.TRANSISTOR		
	Q3155-56	2SC2412K(QR)-X	CHIP TRANSISTOR		
	Q3157	2SA1037K(QR)-X	CHIP TRANSISTOR		
	Q3301	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q3302	2SA673(C)-T	SI.TRANSISTOR		
	Q3303	2SC1906-T	SI.TRANSISTOR		
	Q3304-05	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q3306	2SA673(C)-T	SI.TRANSISTOR		
	Q3307	2SA1837	SI.TRANSISTOR		
	Q3308	2SC4793	SI.TRANSISTOR		
	OTHERS				
⚠	FR3330	QRH017J-561M	F R	560 Ω 1W J	
	K3301-04	CE41492-001Z	CHOKE COIL		
⚠	SK3001	CE42535-001J1	CRT SOCKET		

FRONT CONTROL PW BOARD ASS'Y [(SKA-8005A-H2) : AV-G29MS / AV-G29MH]

⚠	Symbol No.	Part No.	Part Name	Description	Local
	CAPACITOR				
	C8001-04	QETC1VM-227Z	E CAP.	220μF 35V M	
	C8006	QFLC1HJ-104MZ	M CAP.	0.1μF 50V J	
	C8402	QFLC1HJ-103MZ	M CAP.	0.01μF 50V J	
	DIODE				
	D8007	CE40538-00A	PHOTO CONDUCTOR		
	D8008	1SS353-X	SI.DIODE		
	D8010	SPR-39MVWF	L.E.D.		
	D8011	SLR-342DU-T	L.E.D.(ORG)		
	D8012	SLR-342MW-T	L.E.D.(GRN)		
	D8013	1SS353-X	SI.DIODE		
	D8402-03	MA3100(M)-X	ZENER DIODE		
	TRANSISTOR				
	Q8001	2SC1740S(QR)-T	SI.TRANSISTOR		
	Q8002	DTC124ES-T	DIGI.TRANSISTOR		
	Q8003-04	DTA124ES-T	DIGI.TRANSISTOR		
	IC				
	IC8001	HC-337M	IFR DETECT UNIT		
	OTHERS				
		CM36005-001-H	LED HOLDER		
	CN800A	CHC108N-25T-A	FFC CONNECTOR		
⚠	F8901	QMF51E2-4R0S	FUSE	4.0A	
	J8001	QMS3004-C01	HEADPHONE JACK		
	J8002	QMD2B04-001	MINI CONNECTOR		
	J8003	CEMN011-004	PIN JACK		
	J8004	CEMN011-006	PIN JACK		
	J8005	CEMN011-005	PIN JACK		
	S8001	QSP1A11-C18Z	PUSH SWITCH	CH PRESET	
	S8002	QSP1A11-C18Z	PUSH SWITCH	CH DOWN	
	S8003	QSP1A11-C18Z	PUSH SWITCH	CH UP	
	S8004	QSP1A11-C18Z	PUSH SWITCH	VOL (-)	
	S8005	QSP1A11-C18Z	PUSH SWITCH	VOL (+)	
	S8006	QSP1A11-C18Z	PUSH SWITCH	TV/VIDEO	
⚠	S8901	QSP4K21-C01	PUSH SWITCH	POWER SW	

LINE FILTER PW BOARD ASS'Y [(SKA-9341A-H2) : AV-G29MS / AV-G29MH]

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
⚠	R9901	QRF154J-680	UNF R	68 Ω 15W J	
	CAPACITOR				
⚠	C9901	QFZ9036-104M	MF CAP.	0.1μFAC250V M	
⚠	C9902	QFZ9036-104M	MF CAP.	0.1μFAC250V M	
⚠	C9903	QFZ9036-104M	MF CAP.	0.1μFAC250V M	
	OTHERS				
⚠	LF9901	CE41734-00AJ1	LINE FILTER		
⚠	LF9902	CE41890-003	LINE FILTER		
⚠	TH9901	CEKP002-003	W.P.THERMISTOR		
⚠	VA9901	ERZ-C10VK621A	VARISTOR		

AV A2 NICAM PW BOARD ASS'Y [(SKA0A001A-H2) : AV-G29MS / AV-G29MH]

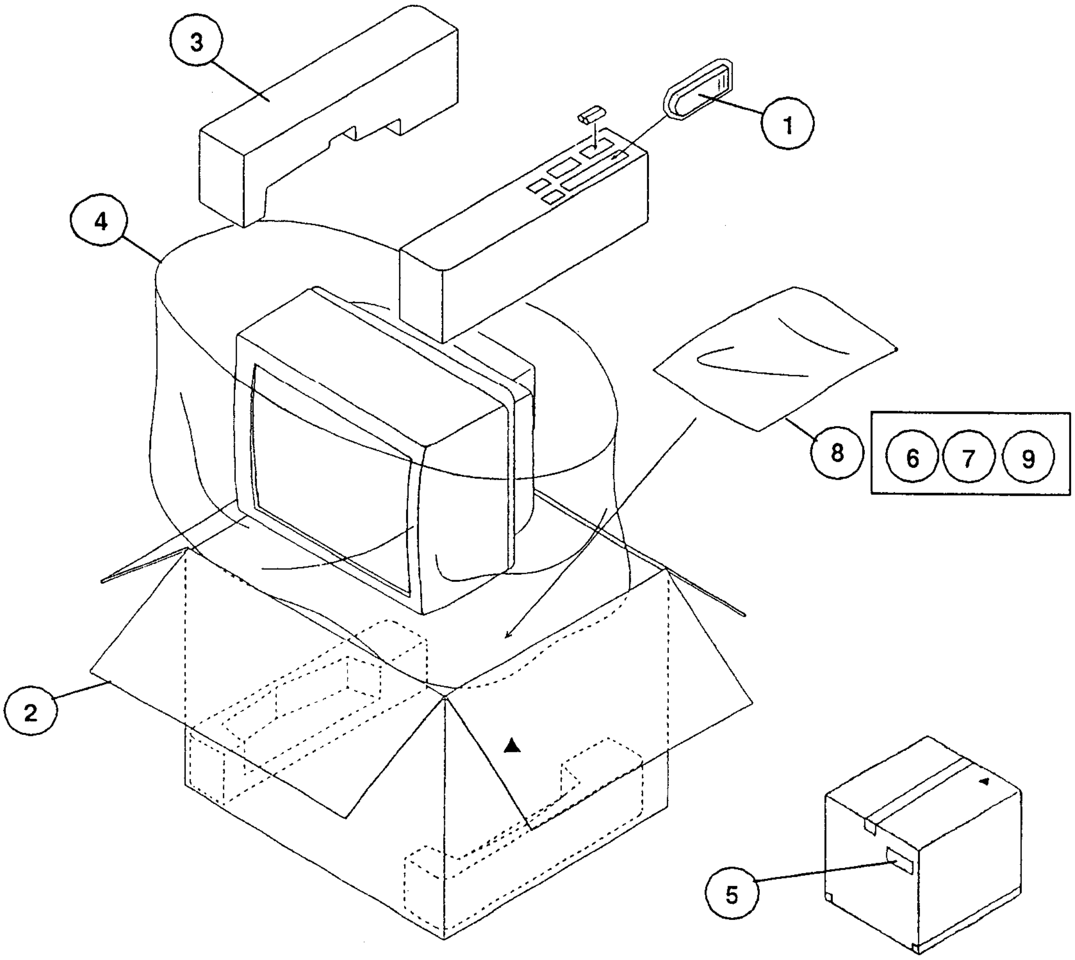
⚠ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C0101	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0103-04	NCB21HK-472AY	CHIP CAP.	4700 pF 50V K	
C0105-09	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0110	NCB21HK-331AY	CHIP CAP.	330 pF 50V K	
C0112	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0114-15	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0118	NCT03CH-820AY	CHIP CAP.	82 pF 1600V H	
C0119	NCT03CH-470AY	CHIP CAP.	47 pF 1600V H	
C0120	NCT03CH-180AY	CHIP CAP.	18 pF 1600V H	
C0122	NCT03CH-330AY	CHIP CAP.	33 pF 1600V H	
C0123	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0124	NCB21HK-682AY	CHIP CAP.	6800 pF 50V K	
C0125	NCS21HJ-221AY	CHIP C CAP.	220 pF 50V J	
C0126	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0162	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	
C0163	NCT03CH-270AY	CHIP CAP.	27 pF 1600V H	
C0301	NCT03CH-180AY	CHIP CAP.	18 pF 1600V H	
C0303	QEN61CM-336Z	BP E CAP.	33 μF 16V M	
C0304	NCT03CH-120AY	CHIP CAP.	12 pF 1600V H	
C0305	NCT03CH-121AY	CHIP CAP.	120 pF 1600V H	
C0306	NCT03CH-390AY	CHIP CAP.	39 pF 1600V H	
C0307-08	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0401	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0403	QEN61HM-105Z	BP E CAP.	1 μF 50V M	
C0404	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0405	NCB21EK-563AY	CHIP CAP.	0.056 μF 25V K	
C0406	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0407-08	QEN61HM-105Z	BP E CAP.	1 μF 50V M	
C0410-11	QEN61HM-105Z	BP E CAP.	1 μF 50V M	
C0412-13	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	
C0423-24	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0427-28	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0430	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0449	NCB21EK-563AY	CHIP CAP.	0.056 μF 25V K	
C0501-02	NCT03CH-2R0AY	CHIP CAP.	2 pF 1600V H	
C0503-04	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0507-08	NCF21HZ-104AY	CHIP C CAP.	0.1 μF 50V Z	
C0510	NCF21HZ-104AY	CHIP C CAP.	0.1 μF 50V Z	
C0511-12	NCS21HJ-471AY	CHIP C CAP.	470 pF 50V J	
C0513	NCF21HZ-104AY	CHIP C CAP.	0.1 μF 50V Z	
C0516	NCF21HZ-104AY	CHIP C CAP.	0.1 μF 50V Z	
C0521	NCF21HZ-104AY	CHIP C CAP.	0.1 μF 50V Z	
C0522-23	NCB21HK-102AY	CHIP CAP.	1000 pF 50V K	
C0524-25	NCS21HJ-391AY	CHIP C CAP.	390 pF 50V J	
C0529	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0530	NCB21HK-152AY	CHIP CAP.	1500 pF 50V K	
C0531-33	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0534	NCB21HK-152AY	CHIP CAP.	1500 pF 50V K	
C0536	NCB21HK-102AY	CHIP CAP.	1000 pF 50V K	
C0539	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0540-41	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0601-02	QEN61HM-105Z	BP E CAP.	1 μF 50V M	
C0604-06	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0609	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	
C0611	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	
C0614	NCT03CH-101AY	CHIP CAP.	100 pF 1600V H	
C0618	NCB21HK-103AY	CHIP CAP.	0.01 μF 50V K	
C0619	NCB21HK-393AY	CHIP CAP.	0.039 μF 50V K	
C0621	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0623	QEN61CM-106Z	BP E CAP.	10 μF 16V M	
C0625	NCB21HK-273AY	CHIP CAP.	0.027 μF 50V K	

⚠	Symbol No.	Part No.	Part Name	Description	Local
	TRANSFORMER				
	T0101	CELT001-306	C.WAVE TRANSF.		
	COIL				
	L0101	CELP026-1R5Z	PEAKING COIL	1.5μH	
	COIL				
	L0102	CELP026-100Z	PEAKING COIL	10μH	
	L0104	CELP026-100Z	PEAKING COIL	10μH	
	L0105	CELP026-150Z	PEAKING COIL	15μH	
	L0106	CELP026-180Z	PEAKING COIL	18μH	
	L0107	CELP026-100Z	PEAKING COIL	10μH	
	L0301	CELP026-820Z	PEAKING COIL	82μH	
	L0302	CELP026-220Z	PEAKING COIL	22μH	
	L0303	CELP026-820Z	PEAKING COIL	82μH	
	L0502-04	CELP026-4R7Z	PEAKING COIL	4.7μH	
	DIODE				
	D0101-02	1SS85-T5	SI.DIODE		
	D0103	MA3091(M)-X	ZENER DIODE		
	D0402	1SS353-X	SI.DIODE		
	D0408	MA3100(M)-X	ZENER DIODE		
	D0410	MA3100(M)-X	ZENER DIODE		
	D0414-17	MA3100(M)-X	ZENER DIODE		
	D0418-19	MTZJ11(A)-T2	ZENER DIODE		
	D0501	1SS353-X	SI.DIODE		
	D0601-02	1SS353-X	SI.DIODE		
	TRANSISTOR				
	Q0101	2SC5083(L-P)-T	SI.TRANSISTOR		
	Q0102-03	2SA1037K(QR)-X	CHIP TRANSISTOR		
	Q0104	DTC323TK-X	DIGI.TRANSISTOR		
	Q0105-07	2SC2412K(QR)-X	CHIP TRANSISTOR		
	Q0301-03	2SC2412K(QR)-X	CHIP TRANSISTOR		
	Q0304	2SA1037K(QR)-X	CHIP TRANSISTOR		
	Q0401	2SA673(C)-T	SI.TRANSISTOR		
	Q0402-03	DTC144EK-X	DIGI TRANSISTOR		
	Q0405-08	2SA1037K(QR)-X	CHIP TRANSISTOR		
	Q0601	DTC323TK-X	DIGI.TRANSISTOR		
	IC				
	IC0101	LA7577N	I.C(MONO-ANA)		
	IC0401	CXA1545AS	I.C(MONO-ANA)		
	IC0402	AN78L09-Y	I C		
	IC0501	MSP3410-SDIL	I.C(DIGI-OTHER)		
	IC0502	BA4558	I.C(MONO-ANA)		
	IC0601	CXA1298AP	I.C(MONO-ANA)		
	IC0602-03	BA4558N	I.C(MONO-ANA)		
	OTHERS				
	CF0105	A74603-C-Z	CERAMIC FILTER		
	DL0301	CE42392-002	COMB FILTER		
	EF0501-03	CE42482-103Y	EMI FILTER		
⚠	FR0118	QRZ0054-470M	F R	47 Ω 1/4W J	
	J0401	QMD2B04-001	MINI CONNECTOR		
	J0402	CEMN078-001	PIN JACK		
	K0501	CE42050-001Z	CORE		
	SF0101	CE41031-602	SAW FILTER		
	SF0102	CE41031-601	SAW FILTER		
	X0501	CE42546-001	CRYSTAL		

TELETEXT PW BOARD ASS'Y [(SKA0T001A-H2) : AV-G29MS]

⚠ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C0002	NCF21HZ-104AY	CHIP C CAP.	0.1 µF 50V Z	
C0004	NCT03CH-150AY	CHIP CAP.	15 pF 1600V H	
C0005	NCT03CH-8R0AY	CHIP CAP.	8 pF 1600V H	
C0006	NCT03CH-102AY	CHIP CAP.	1000 pF 1600V H	
C0007-09	NCF21HZ-104AY	CHIP C CAP.	0.1 µF 50V Z	
C0012	NCF21HZ-104AY	CHIP C CAP.	0.1 µF 50V Z	
C0014	NCB21HK-103AY	CHIP CAP.	0.01 µF 50V K	
C0015	NCB21HK-332AY	CHIP CAP.	3300 pF 50V K	
C0019	NCF21HZ-104AY	CHIP C CAP.	0.1 µF 50V Z	
C0021-26	NCF21CZ-105AY	CHIP C CAP.	1 µF 16V Z	
COIL				
L0001	CE40344-4R7YL	INDUCTOR		
L0002	CE40344-3R3YL	CHIP INDUCTOR		
L0003-05	CE40344-4R7YL	INDUCTOR		
L0007	CELP026-4R7	PEAKING COIL	4.7 µH	
DIODE				
D0001	MA151WK-X	DIODE		
D0002	MA151WA-X	SI.DIODE		
TRANSISTOR				
Q0001	2SC2412K(QR)-X	CHIP TRANSISTOR		
Q0002	2SA1037K(QR)-X	CHIP TRANSISTOR		
Q0003-05	2SC2412K(QR)-X	CHIP TRANSISTOR		
IC				
IC0001	SAA5281P/E/M3	I.C.(MONO-ANA)		
IC0004	ST24C02AB1	I.C.(EP-ROM)		
IC0005	P83C654FBP/081	MICRO COMPUTER		
OTHERS				
X0001	CE42102-001	CRYSTAL		

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	RM-C665-1H	REMOCON UNIT	(AV-G29MS)	
	1	RM-C666-1H	REMOCON UNIT	(AV-G29MH)	
	2	CP11400-018-H	PACKING CASE	(AV-G29MS)	
	2	CP11400-019-H	PACKING CASE	(AV-G29MH)	
	3	CP11410-00C-H	CUSHION ASSY	4pcs in 1set	
	4	CP30697-006-H	POLY BAG		
	5	CM47385-00B-H	POS,SERIAL LABEL		
⚠	6	CQ40016-001-H	INST BOOK	(AV-G29MS)	
⚠	6	CQ40018-001-H	INST BOOK	(AV-G29MH)	
	7	CE41983-00A	MATCHING BOX		
	8	QPGA025-03505H	POLY BAG		
	9	CQ40017-001-H	DIGEST MANUAL	(AV-G29MS ONLY)	

AV-G29MS AV-G29MH STANDARD CIRCUIT DIAGRAM

■NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal :PAL Color bar signal
(2)Setting positions of each knob/button and variable resistor :Original setting position when shipped
(3)Internal resistance of tester :DC 20kΩ/V
(4)Oscilloscope sweeping time :H ⇒20μS/div
:V ⇒5mS/div
:Others ⇒ Sweeping time is specified
(5)Voltage values :All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL[EXAMPLE]

- In the PW board :R1209→R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

- Resistance value
  No unit :[Ω]
  K :[KΩ]
  M :[MΩ]
- Rated allowable power
  No indication :1/6[W]
  Others :As specified
- Type
  No indication :Carbon resistor
  OMR :Oxide metal film resistor
  MFR :Metal film resistor
  MPR :Metal plate resistor
  UNFR :Uninflammable resistor
  FR :Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

- Capacitance value
  1or higher :[pF]
  less than 1 :[μF]
- Withstand voltage
  No indication :DC50[V]
  Others :DC withstand voltage[V]
  AC indicated :AC withstand voltage[V]

* Electrolytic Capacitors
47/50[Example]:Capacitance value[μF]/withstand voltage[V]

- Type
  No indication :Ceramic capacitor
  MY :Mylar capacitor
  MM :Metalized mylar capacitor
  PP :Polypropylene capacitor
  MPP :Metalized polypropylene capacitor
  MF :Metalized film capacitor
  TF :Thin film capacitor
  BP :Bipolar electrolytic capacitor
  TAN :Tantalum capacitor

(3)Coils

No unit :[μH]
Others :As specified

(4)Power Supply

▬▬▬▬ :B1(142.5V)
■■■■ :B2(12V)
■□■□ :8V
□□□□ :5V

* Respective voltage values are indicated.

(5)Test Point

⦿ : Test point
○ : Only test point display

(6)Connecting method

□ : Connector
○ : Wrapping or soldering
→>— →>+— : Receptacle

(7)Ground symbol

⊥ : LIVE side ground
⏚ : ISOLATED(NEUTRAL) side ground
⏚ : EARTH ground
▽ : DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

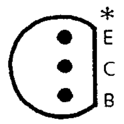
(1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

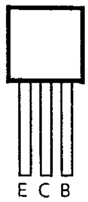
◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

SEMICONDUCTOR SHAPES (* = Bottom view)

TRANSISTORS



2SA1013(0)
2SA673(C)
2SC2240(GB)
2SC1906
2SA966(0Y)-T
2SC1815(YG)
2SC2482(C1)
2SC4722(NP)
2PA1015(YG)
2PC1815(YG)



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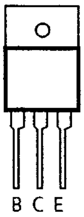
2SA933S(QR)
2SC1740S(QR)
2SC2785(JH)
DTC124ESA-T
DTC323TS



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2SD1876-YD
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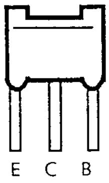
MTA2N60E
2SC4544-C1



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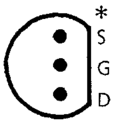
2SC5083(L-P)



2SK301(Q)
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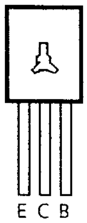

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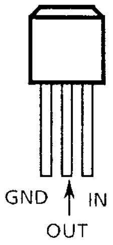
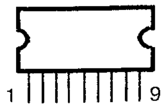
2SC3271(NP)

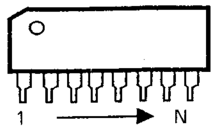


DTC144ESA
DTA144GS
DTC144ES
DTA144ES

ICs

TDA8351 / N3





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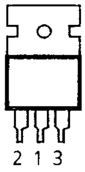

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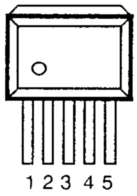
S1854-C2



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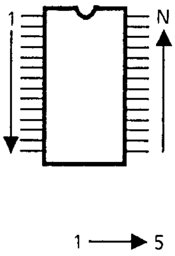

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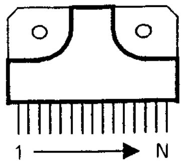
P83C654FBP / 541
MN1873237JKH6
M52343SP
M37102M8-C41SP



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UPC1488H
LA7837
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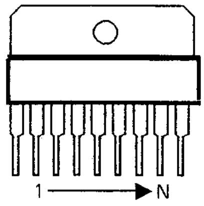

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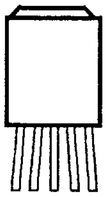

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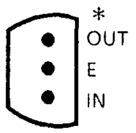
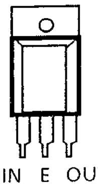


KIA78L08BP



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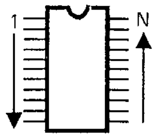
KIA7808PI
AN7805F
AN78N12
AN78M05



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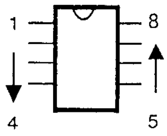

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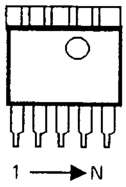
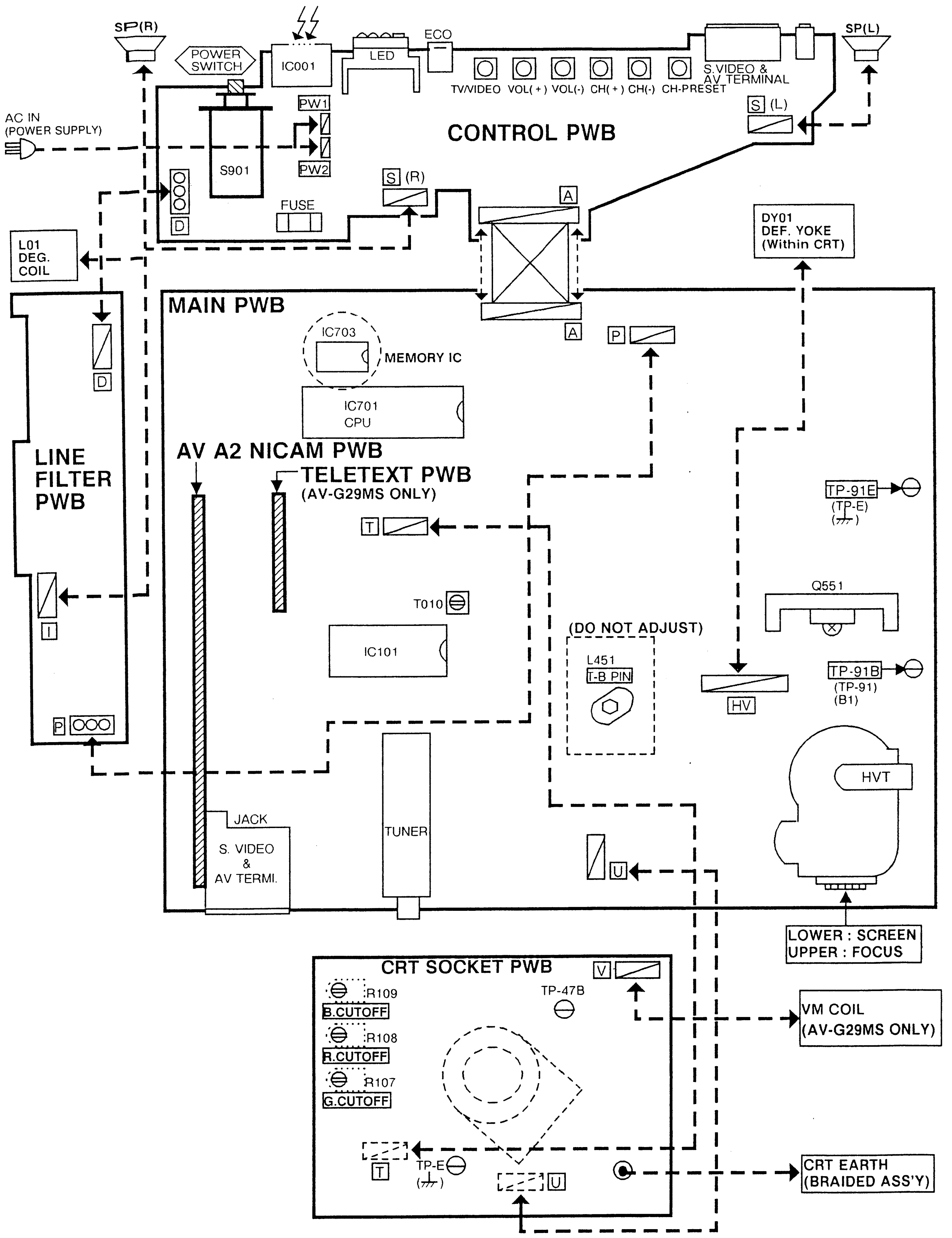
XL24C04P-21ME



STR-S6707
STR-S6706

MAIN PARTS ALIGNMENTS LOCATION & WIRING DIAGRAM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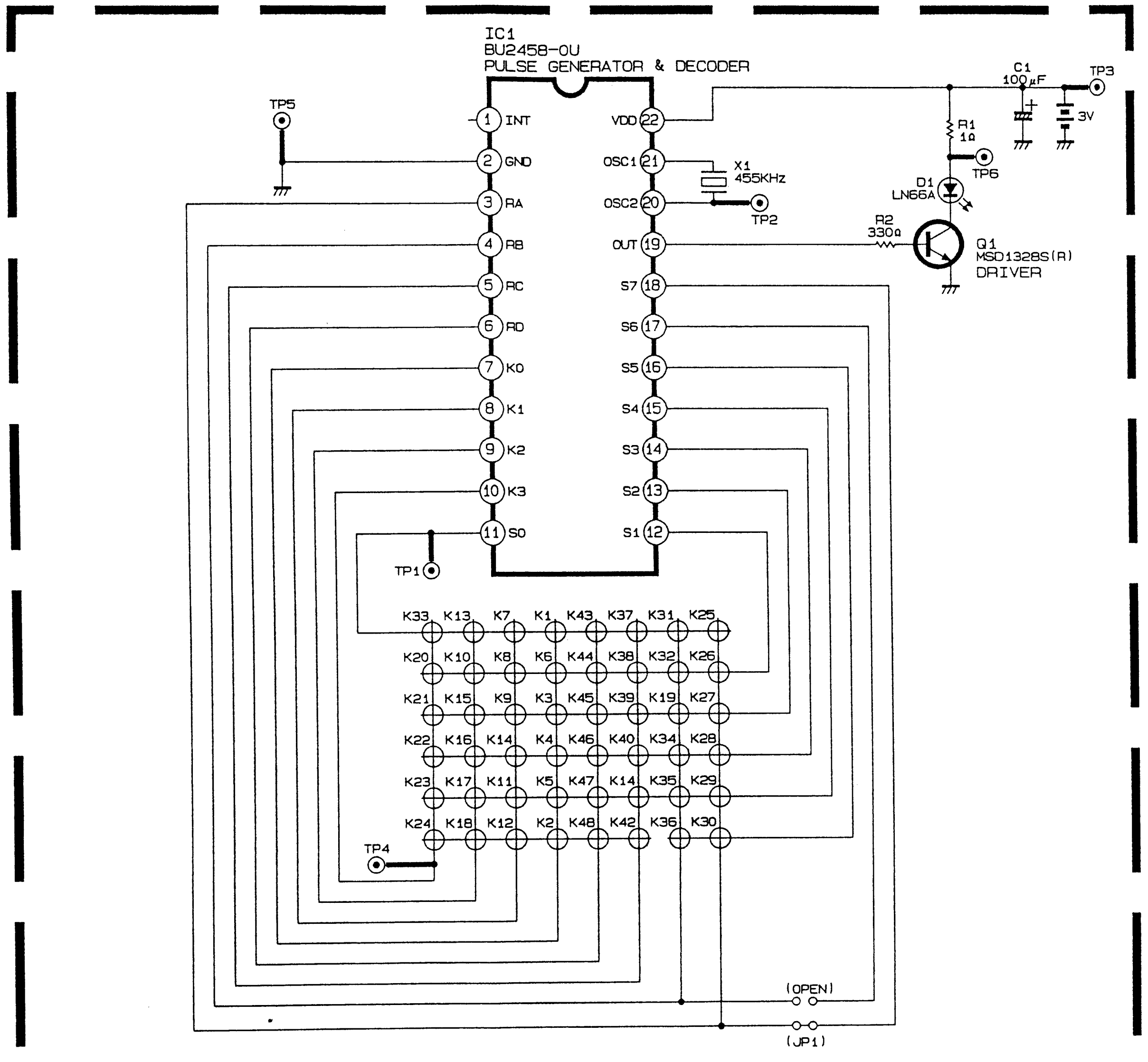
POWER SWITCH
IC001
LED
ECO
SP(L)
S.VIDEO & AV TERMINAL
TV/VIDEO VOL(+) VOL(-) CH(+) CH(-) CH-PRESET
AC IN
(POWER SUPPLY)
PW1
PW2
S901
CONTROL PWB
S (L)
S (R)
FUSE
D
A
L01
DEG.
COIL
DY01
DEF. YOKE
(Within CRT)
MAIN PWB
IC703
MEMORY IC
IC701
CPU
P
LINE
FILTER
PWB
AV A2 NICAM PWB
TELETEXT PWB
(AV-G29MS ONLY)
T
TP-91E
(TP-E)
T010
Q551
(DO NOT ADJUST)
IC101
L451
T-B PIN
HV
TP-91B
(TP-91)
(B1)
I
P
HVT
JACK
S. VIDEO
&
AV TERMI.
TUNER
U
LOWER : SCREEN
UPPER : FOCUS
CRT SOCKET PWB
V
R109
B.CUTOFF
TP-47B
R108
R.CUTOFF
R107
G.CUTOFF
VM COIL
(AV-G29MS ONLY)
T
TP-E
U
CRT EARTH
(BRAIDED ASS'Y)

REMOTE CONTROL TRANSMITTER CIRCUIT DIAGRAM
[RM-C665-1H (AV-G29MS) / RM-C666-1H (AV-G29MH)]


IC1
BU2458-OU
PULSE GENERATOR & DECODER
TP5
1 INT
2 GND
3 RA
4 RB
5 RC
6 RD
7 KO
8 K1
9 K2
10 K3
11 SO
VDD 22
OSC1 21
OSC2 20
OUT 19
S7 18
S6 17
S5 16
S4 15
S3 14
S2 13
S1 12
X1
455KHz
TP2
C1
100μF
TP3
3V
R1
1Ω
TP6
D1
LN66A
R2
330Ω
Q1
MSD1328S(R)
DRIVER
TP1
TP4
K33 K13 K7 K1 K43 K37 K31 K25
K20 K10 K8 K6 K44 K38 K32 K26
K21 K15 K9 K3 K45 K39 K19 K27
K22 K16 K14 K4 K46 K40 K34 K28
K23 K17 K11 K5 K47 K14 K35 K29
K24 K18 K12 K2 K48 K42 K36 K30
(OPEN)
(JP1)

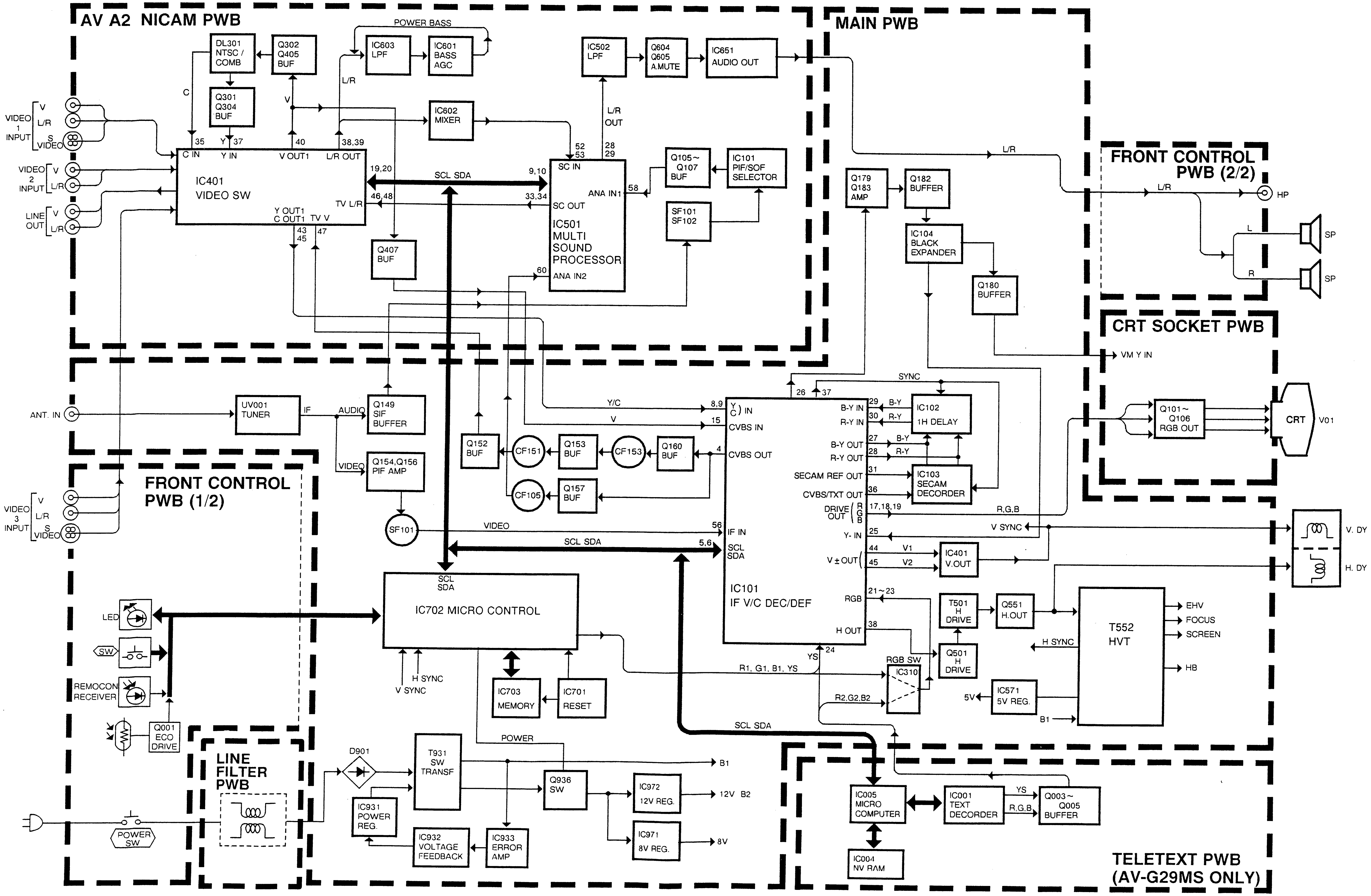
KEY No	FUNCTION
1	CHANNEL V (VCR)
2	CHANNEL Λ (VCR)
3	EJECT (VCR)
4	POWER (VCR)
5	REW ◀◀ (VCR)
6	PLAY ▶ (VCR)
7	FF ▶▶ (VCR)
8	———
9	REC ● (VCR)
10	STOP ■ (VCR)
11	PAUSE (VCR)
12	———
13	TV / VIDEO
14	OFF TIMER
15	———
16	———

KEY No	FUNCTION
17	POWER
18	ꝏ ▭ I/II
19	COLOUR SYSTEM
20	SOUND SYSTEM
21	SOUND MODE
22	PICTURE MODE
23	MENU
24	1
25	2
26	3
27	DISPLAY
28	4
29	5
30	6
31	ECO SENSOR
32	7

KEY No	FUNCTION
33	8
34	9
35	POWER BASS
36	———
37	0
38	-/--
39	PICTURE/SOUND ▲
40	PICTURE/SOUND ◀
41	PICTURE/SOUND ▶
42	PICTURE/SOUND ▼
43	SURROUND
44	MUTE
45	CHANNEL ▼ PAGE [AV-G29MS]
46	CHANNEL ▲ PAGE [AV-G29MS]
47	VOLUME -
48	VOLUME +

RM-C665-1H [AV-G29MS]
RM-C666-1H [AV-G29MH]

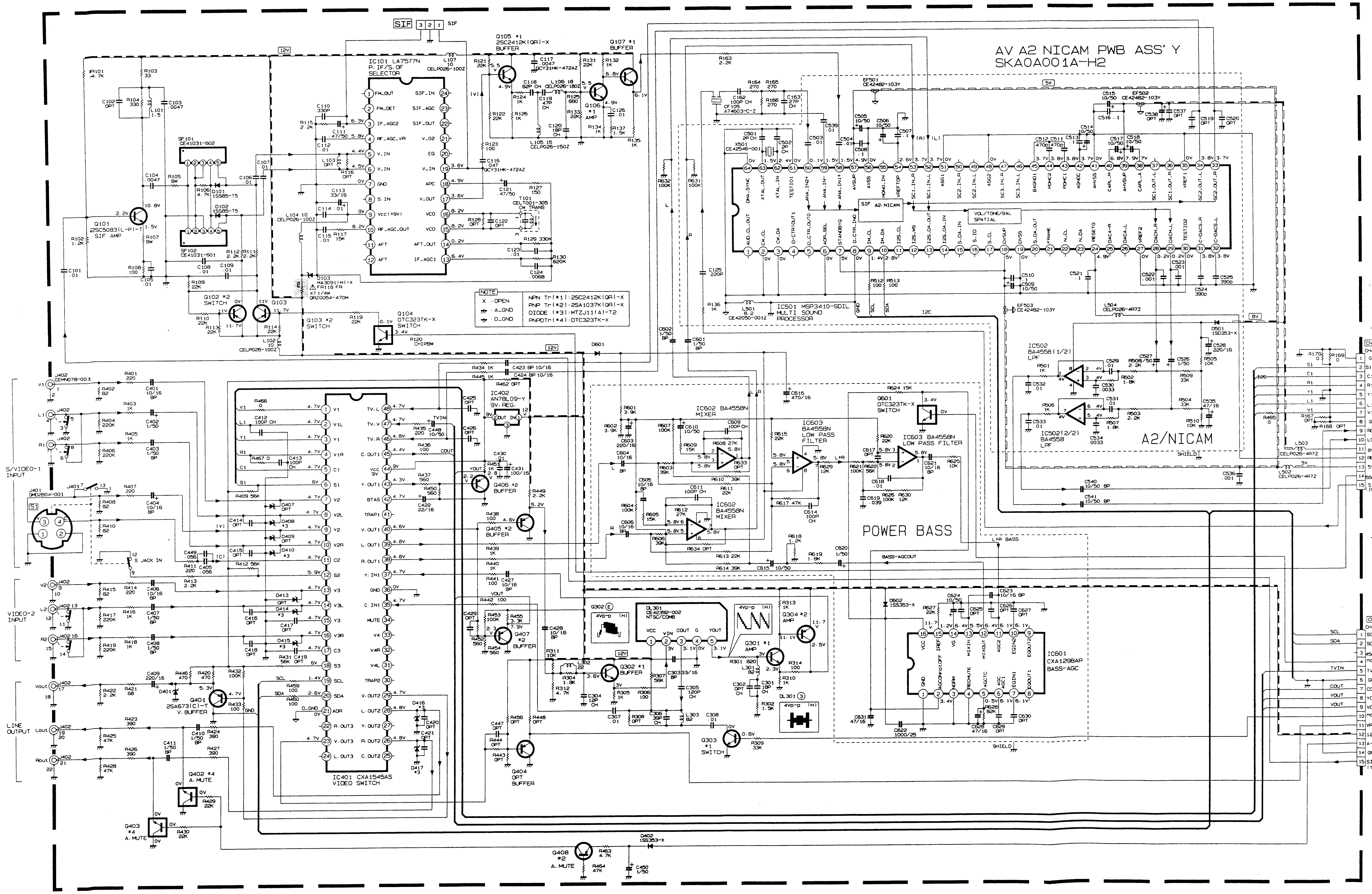
BLOCK DIAGRAM


AV A2 NICAM PWB
MAIN PWB
FRONT CONTROL PWB (2/2)
CRT SOCKET PWB
FRONT CONTROL PWB (1/2)
LINE FILTER PWB
TELETEXT PWB (AV-G29MS ONLY)
DL301 NTSC / COMB
Q302 Q405 BUF
IC603 LPF
IC601 BASS AGC
POWER BASS
Q301 Q304 BUF
IC602 MIXER
IC502 LPF
Q604 Q605 A.MUTE
IC651 AUDIO OUT
L/R OUT
IC401 VIDEO SW
C IN
Y IN
V OUT1
L/R OUT
TV L/R
Y OUT1
C OUT1
TV V
SCL SDA
IC501 MULTI SOUND PROCESSOR
SC IN
SC OUT
ANA IN1
ANA IN2
Q105~Q107 BUF
IC101 PIF/SOF SELECTOR
SF101 SF102
Q407 BUF
VIDEO 1 INPUT
V
L/R
S VIDEO
VIDEO 2 INPUT
LINE OUT
VIDEO 3 INPUT
ANT. IN
UV001 TUNER
IF
AUDIO
VIDEO
Q149 SIF BUFFER
Q154,Q156 PIF AMP
SF101
Q152 BUF
CF151
Q153 BUF
CF153
Q160 BUF
CF105
Q157 BUF
Q179 Q183 AMP
Q182 BUFFER
IC104 BLACK EXPANDER
Q180 BUFFER
L/R
HP
L
R
SP
SP
VM Y IN
Q101~Q106 RGB OUT
CRT
V01
SYNC
Y/C
Y C IN
CVBS IN
CVBS OUT
IF IN
SCL SDA
B-Y IN
R-Y IN
B-Y OUT
R-Y OUT
SECAM REF OUT
CVBS/TXT OUT
DRIVE OUT R G B
Y- IN
V ± OUT
RGB
H OUT
IC101 IF V/C DEC/DEF
IC102 1H DELAY
IC103 SECAM DECORDER
R,G,B
V SYNC
V. DY
H. DY
IC401 V.OUT
V1
V2
T501 H DRIVE
Q551 H.OUT
Q501 H DRIVE
T552 HVT
EHV
FOCUS
SCREEN
HB
H SYNC
IC571 5V REG.
5V
B1
RGB SW IC310
R1, G1, B1, YS
R2,G2,B2
YS
IC702 MICRO CONTROL
SCL SDA
V SYNC
H SYNC
IC703 MEMORY
IC701 RESET
LED
SW
REMOCON RECEIVER
Q001 ECO DRIVE
POWER SW
D901
T931 SW TRANSF
IC931 POWER REG.
IC932 VOLTAGE FEEDBACK
IC933 ERROR AMP
POWER
Q936 SW
IC972 12V REG.
IC971 8V REG.
B1
12V B2
8V
IC005 MICRO COMPUTER
IC001 TEXT DECORDER
Q003~Q005 BUFFER
R,G,B
IC004 NV RAM
SCL SDA

CIRCUIT DIAGRAMS AND PWB PATTERNS

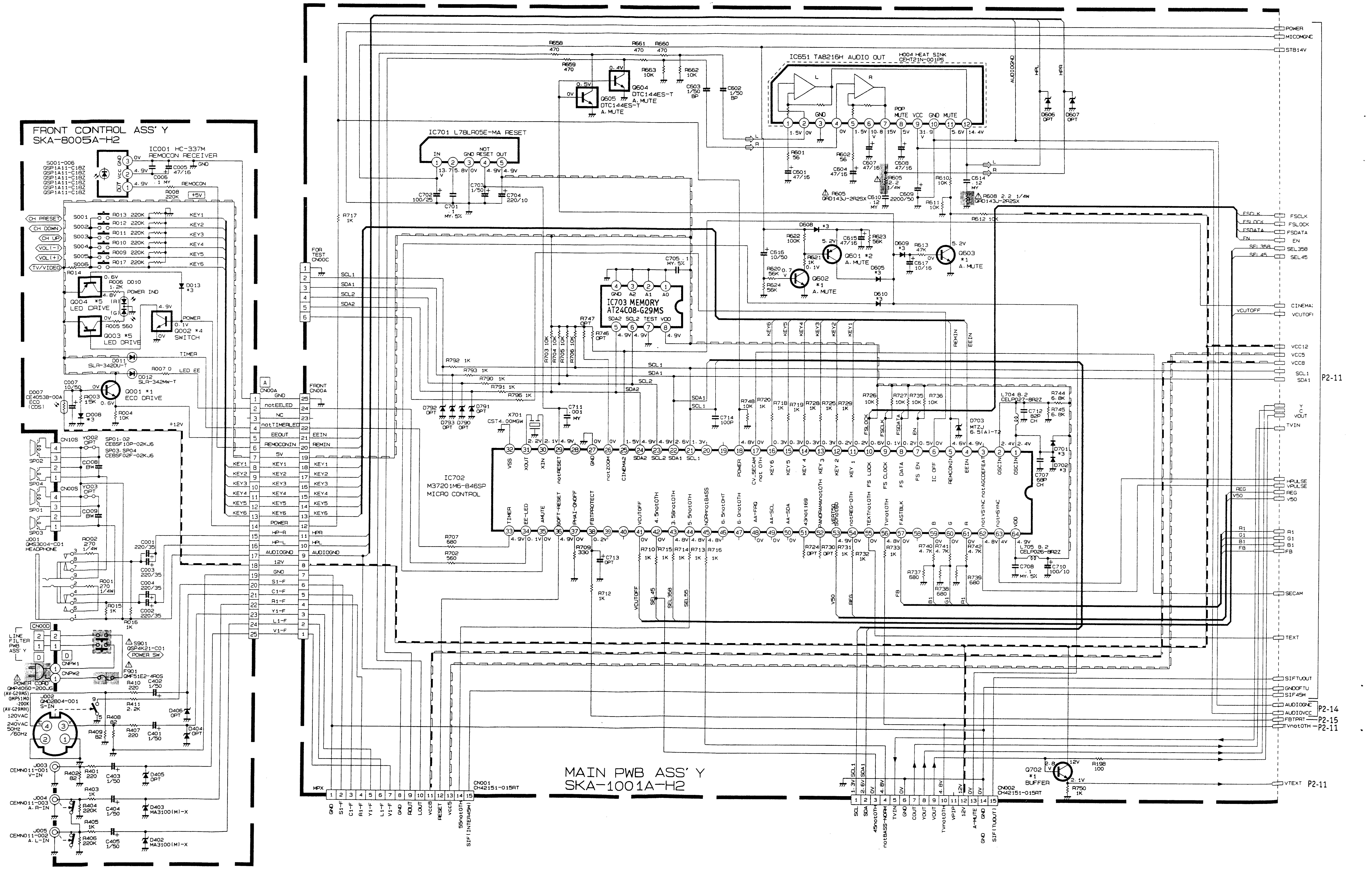
AV A2 NICAM PWB CIRCUIT DIAGRAM [AV-G29MS / AV-G29MH]

Refer to the following PWB pattern. : AV A2 NICAM PWB PATTERN page 2-21 ~ 2-22 .


AV A2 NICAM PWB ASS' Y
SKA0A001A-H2
SIF
IC101 LA7577N P.IF/S.OF SELECTOR
Q101 2SC5083(L-P)-T SIF AMP
Q102 *2 SWITCH
Q103 *2 SWITCH
Q104 DTC323TK-X SWITCH
Q105 *1 2SC2412K(QR)-X BUFFER
Q106 *1 AMP
Q107 *1 BUFFER
SF101 CE41031-602
SF102 CE41031-601
IC501 MSP3410-SDIL MULTI SOUND PROCESSOR
SIF A2-NICAM
VOL/TONE/BAL SPATIAL
X501 CE42546-001
IC502 BA4558(1/2) LPF
IC502(2/2) BA4558 LPF
A2/NICAM
NOTE
X : OPEN
A_GND
D_GND
NPN Tr(*1):2SC2412K(QR)-X
PNP Tr(*2):2SA1037K(QR)-X
DIODE (*3):MTZJ11(A)-T2
PNPDTr(*4):DTC323TK-X
IC401 CXA1545AS VIDEO SWITCH
IC402 AN78L09-Y 9V.REG.
Q405 *2 BUFFER
Q406 *2 BUFFER
Q407 *2 BUFFER
Q404 OPT BUFFER
Q401 2SA673(C)-T V.BUFFER
Q402 *4 A.MUTE
Q403 *4 A.MUTE
Q408 *2 A.MUTE
IC602 BA4558N MIXER
IC603 BA4558N LOW PASS FILTER
Q601 DTC323TK-X SWITCH
POWER BASS
IC601 CXA1298AP BASS-AGC
DL301 CE42392-002 NTSC/COMB
Q301 *1 AMP
Q302 *1 BUFFER
Q303 *1 SWITCH
Q304 *2 AMP
SHIELD
S/VIDEO-1 INPUT
VIDEO-2 INPUT
LINE OUTPUT
S JACK IN
CN001 CH42151-015PSP
CN002 CH42151-015PSP
MAIN PWB
12V
5V
8V

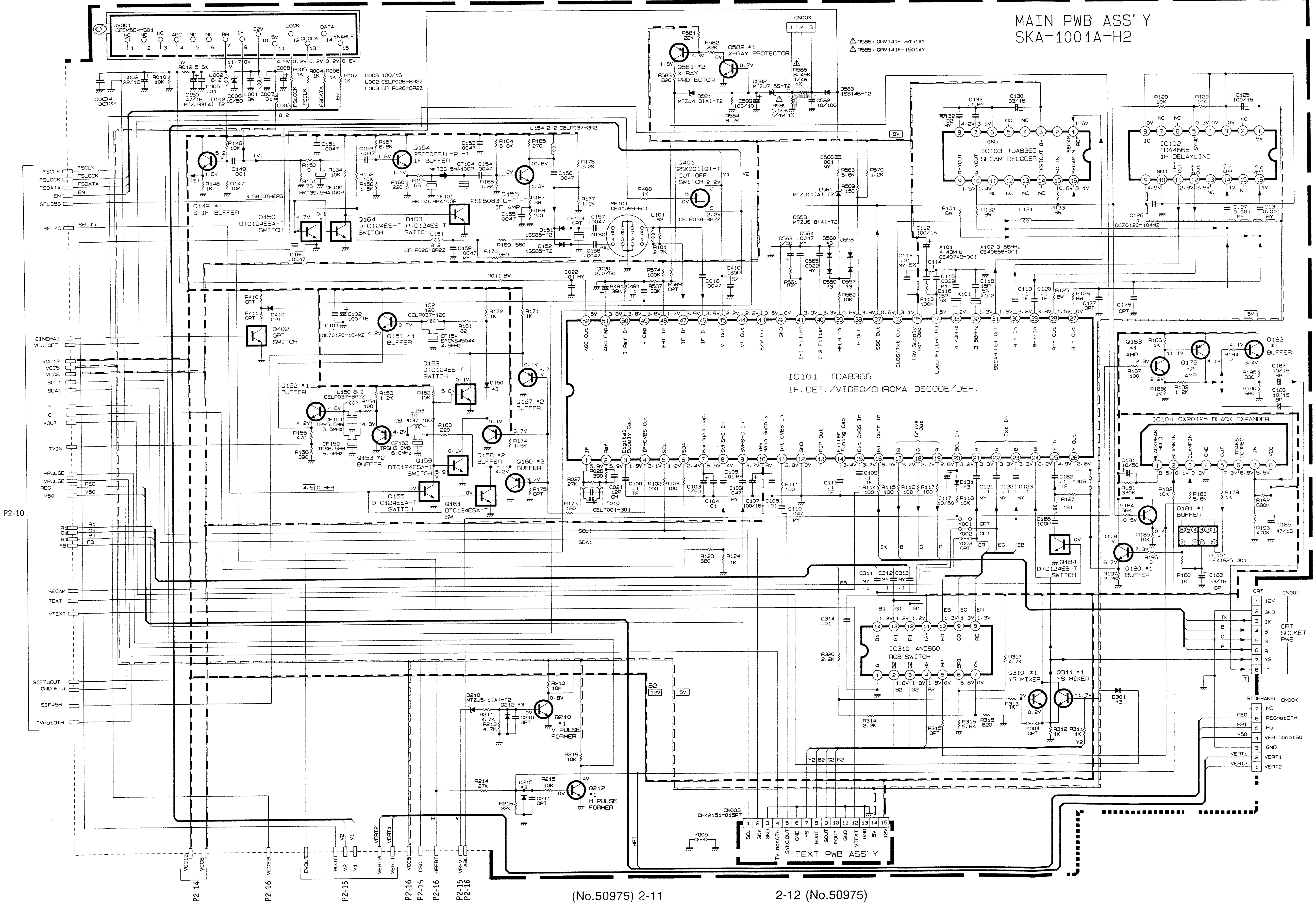
FRONT CONTROL & MAIN PWB CIRCUIT DIAGRAMS [AV-G29MS / AV-G29MH]

Refer to the following PWB pattern. : FRONT CONTROL PWB PATTERN page 2-23 ~ 2-24, MAIN PWB PATTERN page 2-25 ~ 2-28 .


FRONT CONTROL ASS'Y
SKA-8005A-H2
IC001 HC-337M
REMOCON RECEIVER
CH PRESET
CH DOWN
CH UP
VOL(-)
VOL(+)
TV/VIDEO
Q004 *5 LED DRIVE
Q003 *5 LED DRIVE
Q002 *4 SWITCH
Q001 *1 ECO DRIVE
POWER IND
SLA-342OU-T
SLR-342MW-T
TIMER
LED EE
J001 QMS3004-C01 HEADPHONE
LINE FILTER PWB ASS'Y
POWER CORD
S901 QSP4K21-C01 POWER SW
F901 QMF51E2-4R0S
J002 QMD2804-001 S-IN
120VAC 50Hz /60Hz
240VAC
J003 CEMN011-001 V-IN
J004 CEMN011-003 A.R-IN
J005 CEMN011-002 A.L-IN
MAIN PWB ASS'Y
SKA-1001A-H2
IC701 L78LR05E-MA RESET
IC651 TA8216H AUDIO OUT
H004 HEAT SINK CEHT21N-001PS
Q604 DTC144ES-T A.MUTE
Q605 DTC144ES-T A.MUTE
IC703 MEMORY
AT24C08-G29MS
IC702
M37201M6-846SP
MICRO CONTROL
X701 CST4.00MGW
Q601 *2 A.MUTE
Q602 *1 A.MUTE
Q603 *1 A.MUTE
FOR TEST CN00C
Q702 *1 BUFFER
CN001 CH42151-015RT
CN002 CH42151-015RT
POWER
MICOMGND
STB14V
FSCLK
FSLOCK
FSDATA
EN
SEL358
SEL45
CINEMA
VCUTOFF
VCC12
VCC5
VCC8
SCL1
SDA1
P2-11
Y
C
VOUT
TVIN
HPULSE
VPULSE
REG
V50
R1
G1
B1
FB
SECAM
TEXT
SIFTUOUT
GNDOFTU
SIF45M
AUDIOGND
AUDIOVCC
FBTPRT
TVnotOTH
P2-14
P2-15
P2-11
VTEXT
P2-11

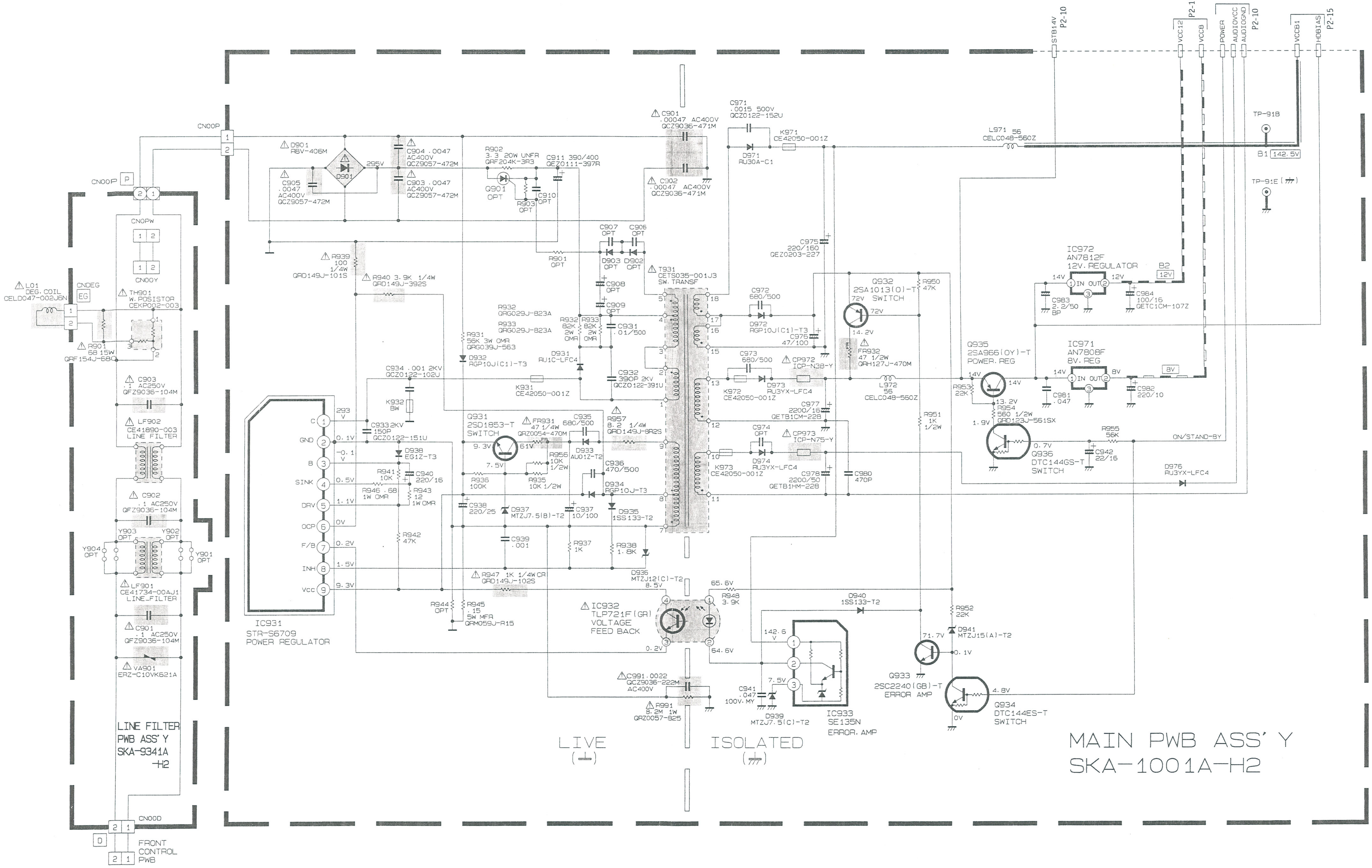
MAIN PWB CIRCUIT DIAGRAM [AV-G29MS / AV-G29MH]

Refer to the following PWB pattern. : MAIN PWB PATTERN page 2-25 ~ 2-28 .


MAIN PWB ASS'Y
SKA-1001A-H2
UV001 CEEM564-B01
IC101 TDA8366
IF. DET./VIDEO/CHROMA DECODE/DEF.
IC103 TDA8395 SECAM DECODER
IC102 TDA4665 1H DELAYLINE
IC104 CX20125 BLACK EXPANDER
IC310 AN5860 RGB SWITCH
Q149 S. IF BUFFER
Q150 DTC124ESA-T SWITCH
Q154 2SC5083(L-P)-T IF BUFFER
Q156 2SC5083(L-P)-T IF AMP
Q164 DTC124ES-T SWITCH
Q163 DTC124ES-T SWITCH
Q401 2SK301(Q)-T CUT OFF SWITCH
Q402 OPT SWITCH
Q151 BUFFER
Q162 DTC124ES-T SWITCH
Q152 BUFFER
Q153 BUFFER
Q157 BUFFER
Q158 BUFFER
Q159 DTC124ESA-T SWITCH
Q155 DTC124ESA-T SWITCH
Q160 BUFFER
Q161 DTC124ESA-T SW
Q581 X-RAY PROTECTOR
Q582 X-RAY PROTECTOR
Q183 AMP
Q179 AMP
Q182 BUFFER
Q181 BUFFER
Q180 BUFFER
Q184 DTC124ES-T SWITCH
Q310 YS MIXER
Q311 YS MIXER
Q210 V. PULSE FORMER
Q212 H. PULSE FORMER
SF101 CE41099-601
DL101 CE41925-001
X101 4.43MHz CE40749-001
X102 3.58MHz CE40668-001
CN003 CH42151-015AT
TEXT PWB ASS'Y
CRT SOCKET PWB
CN00T
CN00K
SIDEPANEL
CN00X
P2-10
P2-14
P2-15
P2-16

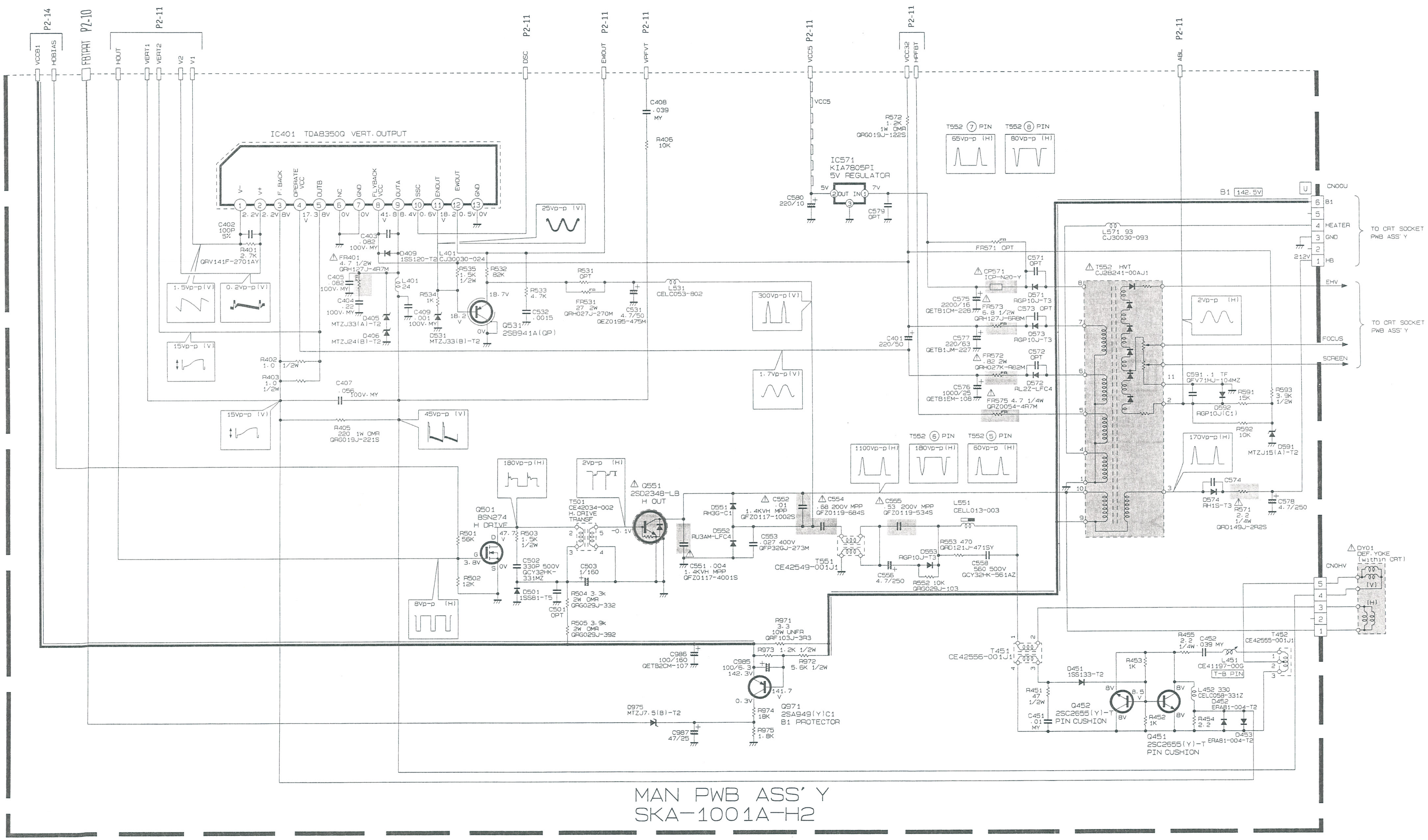
LINE FILTER & MAIN PWB CIRCUIT DIAGRAMS [AV-G29MS / AV-G29MH]

Refer to the following PWB pattern. : LINE FILTER PWB PATTERN page 2-32 , MAIN PWB PATTERN page 2-25 ~ 2-28.


STB14V
P2-10
VCC12
VCCB
P2-11
POWER
AUDIOVCC
AUDIOGND
P2-10
VCCB1
HDBIAS
P2-15
CN00P
CN00P P
CN0PW
CN00Y
CNDEG EG
L01 DEG. COIL CELD047-002J5N
TH901 W. POSISTOR CEKP002-003
R901 68 15W QRF154J-680
C903 .1 AC250V QFZ9036-104M
LF902 CE41890-003 LINE FILTER
C902 .1 AC250V QFZ9036-104M
Y903 OPT
Y902 OPT
Y904 OPT
Y901 OPT
LF901 CE41734-00AJ1 LINE_FILTER
C901 .1 AC250V QFZ9036-104M
VA901 ERZ-C10VK621A
LINE FILTER PWB ASS'Y SKA-9341A -H2
CN00D
D
FRONT CONTROL PWB
D901 RBV-406M
C905 .0047 AC400V QCZ9057-472M
295V
C904 .0047 AC400V QCZ9057-472M
C903 .0047 AC400V QCZ9057-472M
R902 3.3 20W UNFR QRF204K-3R3
C911 390/400 QEZ0111-397R
Q901 OPT
R903 OPT
C910 OPT
C901 .00047 AC400V QCZ9036-471M
C902 .00047 AC400V QCZ9036-471M
C971 .0015 500V QCZ0122-152U
K971 CE42050-001Z
D971 RU30A-C1
L971 56 CELC048-560Z
TP-91B
B1 142.5V
TP-91E
C907 OPT
C906 OPT
D903 OPT
D902 OPT
R901 OPT
R939 100 1/4W QRD149J-101S
R940 3.9K 1/4W QRD149J-392S
T931 CETS035-001J3 SW. TRANSF
C908 OPT
C909 OPT
C975 220/160 QEZ0203-227
IC972 AN7812F 12V. REGULATOR
B2 12V
14V
12V
IN OUT
C983 2.2/50 BP
C984 100/16 QETC1CM-107Z
R932 QRG029J-823A
R933 QRG029J-823A
R932 82K 2W OMR
R933 82K 2W OMR
C931 .01/500
R931 56K 3W OMR QRG039J-563
D932 RGP10J(C1)-T3
D931 RU1C-LFC4
C972 680/500
D972 RGP10J(C1)-T3
C975 47/100
Q932 2SA1013(O)-T 72V SWITCH
R950 47K
72V
14.2V
FR932 47 1/2W QRH127J-470M
IC971 AN7808F 8V. REG
8V
Q935 2SA966(OY)-T POWER. REG
14V
C934 .001 2KV QCZ0122-102U
K931 CE42050-001Z
C932 390P 2KV QCZ0122-391U
C973 680/500
CP972 ICP-N38-Y
K972 CE42050-001Z
D973 RU3YX-LFC4
L972 56 CELC048-560Z
R953 22K
C981 .047
C982 220/10
13.2V
R954 560 1/2W QRD123J-561SX
1.9V
K932 BW
293 V
C933 2KV 150P QCZ0122-151U
Q931 2SD1853-T SWITCH
FR931 47 1/4W QRZ0054-470M
C935 680/500
R957 8.2 1/4W QRD149J-8R2S
C977 2200/16 QETB1CM-228
R951 1K 1/2W
R955 56K
ON/STAND-BY
Q936 DTC144GS-T SWITCH
0.7V
C942 22/16
D976 RU3YX-LFC4
C
GND
B
SINK
CRV
OCP
F/B
INH
VCC
0.1V
-0.1 V
0.5V
1.1V
0V
0.2V
1.5V
9.3V
D938 EG1Z-T3
9.3V
61V
7.5V
D933 AU01Z-T2
R956 10K 1/2W
R935 10K 1/2W
C936 470/500
D934 RGP10J-T3
C974 OPT
CP973 ICP-N75-Y
D974 RU3YX-LFC4
K973 CE42050-001Z
C978 2200/50 QETB1HM-228
C980 470P
R941 10K
C940 220/16
R936 100K
R946 .68 1W OMR
R943 12 1W OMR
C938 220/25
D937 MTZJ7.5(B)-T2
C937 10/100
D935 1SS133-T2
R942 47K
C939 .001
R937 1K
R938 1.8K
R947 1K 1/4W CR QRD149J-102S
D936 MTZJ12(C)-T2
8.5V
65.6V
R948 3.9K
D940 1SS133-T2
R952 22K
R944 OPT
R945 .15 5W MFR QRM059J-R15
IC931 STR-S6709 POWER REGULATOR
IC932 TLP721F(GR) VOLTAGE FEED BACK
0.2V
64.6V
142.6 V
71.7V
D941 MTZJ15(A)-T2
0.1V
Q933 2SC2240(GB)-T ERROR AMP
4.8V
0V
Q934 DTC144ES-T SWITCH
C991 .0022 QCZ9036-222M AC400V
R991 8.2M 1W QRZ0057-825
C941 .047 100V. MY
7.5V
D939 MTZJ7.5(C)-T2
IC933 SE135N ERROR. AMP
LIVE
ISOLATED
MAIN PWB ASS'Y SKA-1001A-H2

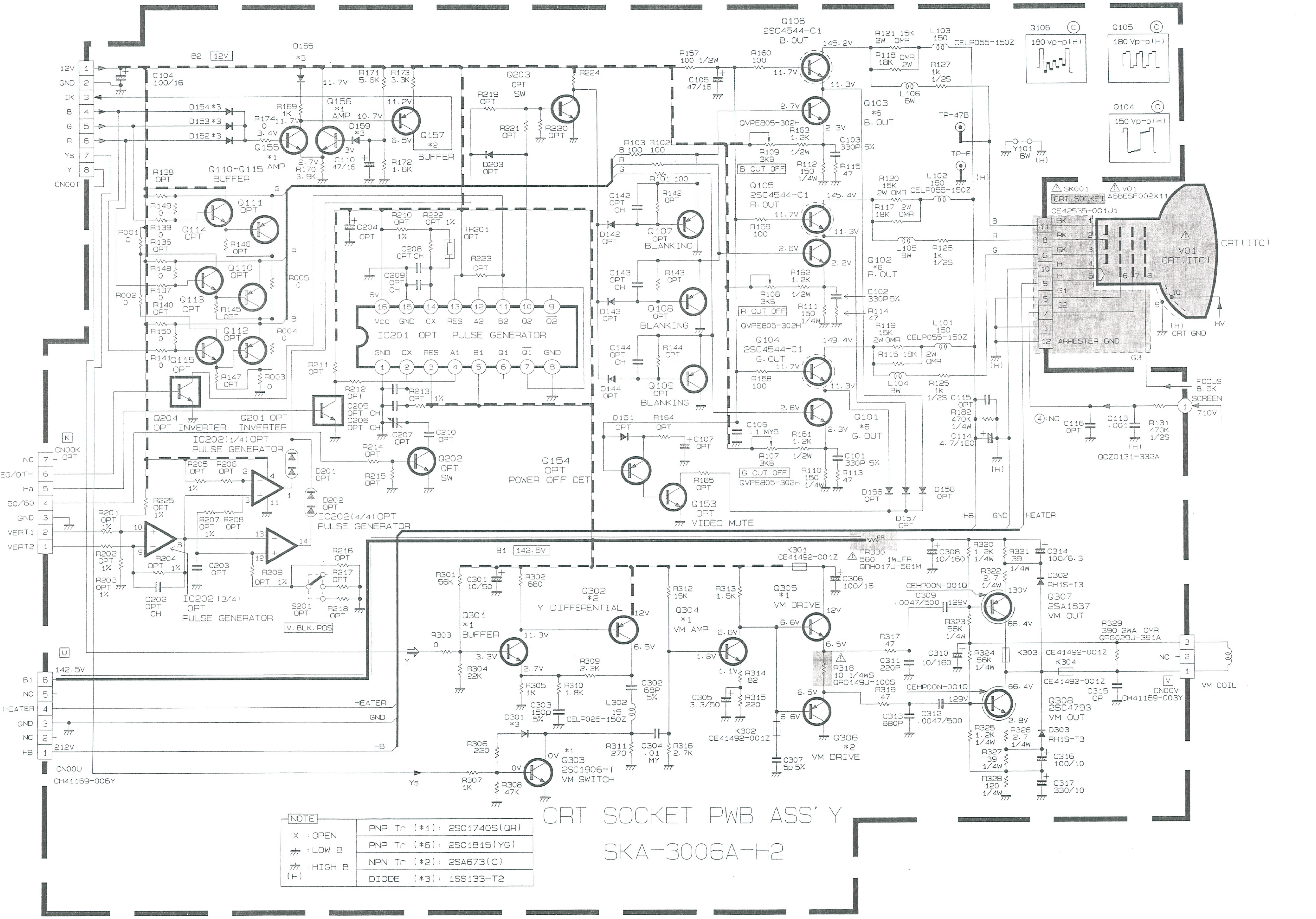
Refer to the following PWB pattern. : MAIN PWB PATTERN page 2-25 ~ 2-28 .

MAIN PWB CIRCUIT DIAGRAM [AV-G29MS / AV-G29MH]


P2-14
VCCB1
HOBIAS
P2-10
FBTPRT
P2-11
HOUT
VERT1
VERT2
V2
V1
DSC
EWOUT
VPFVT
VCC5
VCC32
HPFBT
ABL
IC401 TDA8350Q VERT. OUTPUT
V-
V+
F.BACK
OPERATE VCC
OUTB
NC
GND
FLYBACK VCC
OUTA
SSC
ENOUT
EWOUT
GND
2.2V
2.2V
8V
17.3V
8V
0V
0V
41.8V
8.4V
0.6V
18.2V
0.5V
0V
C402 100P 5%
R401 2.7K QRV141F-2701AY
FR401 4.7 1/2W QRH127J-4R7M
C403 .082 100V.MY
D409 1SS120-T2
L401 CJ30030-024
C405 .082 100V.MY
C404 .22 100V.MY
D405 MTZJ33(A)-T2
D406 MTZJ24(B)-T2
R535 1.5K 1/2W
R532 82K
R534 1K
C409 .001 100V.MY
D531 MTZJ33(B)-T2
Q531 2SB941A(QP)
18.7V
18.2V
0V
R533 4.7K
C532 .0015
R531 OPT
FR531 27 2W QRH027J-270M
C531 4.7/50 QEZ0195-475M
L531 CELC053-802
C408 .039 MY
R406 10K
25Vp-p (V)
1.5Vp-p (V)
0.2Vp-p (V)
15Vp-p (V)
R402 1.0 1/2W
R403 1.0 1/2W
C407 .056 100V.MY
15Vp-p (V)
R405 220 1W OMR QRG019J-221S
45Vp-p (V)
300Vp-p (V)
1.7Vp-p (V)
IC571 KIA7805PI 5V REGULATOR
C580 220/10
C579 OPT
R572 1.2K 1W OMR QRG019J-122S
T552 ⑦ PIN 65Vp-p (H)
T552 ⑧ PIN 80Vp-p (H)
B1 142.5V
CN00U
B1
HEATER
GND
HB
TO CRT SOCKET PWB ASS'Y
EHV
FOCUS
SCREEN
212V
L571 93 CJ30030-093
FR571 OPT
C571 OPT
CP571 ICP-N20-Y
C575 2200/16 QETB1CM-228
FR573 6.8 1/2W QRH127J-6R8M
D571 RGP10J-T3
C573 OPT
D573 RGP10J-T3
C401 220/50
C577 220/63 QETB1JM-227
FR572 .82 2W QRH027K-R82M
C572 OPT
D572 RL2Z-LFC4
C576 1000/25 QETB1EM-108
FR575 4.7 1/4W QRZ0054-4R7M
T552 HVT CJ28241-00AJ1
2Vp-p (H)
C591 .1 TF QFV71HJ-104MZ
R591 15K
R593 3.3K 1/2W
D592 RGP10J(C1)
R592 10K
D591 MTZJ15(A)-T2
170Vp-p (H)
C574
D574 RH1S-T3
R571 2.2 1/4W QRD149J-2R2S
C578 4.7/250
T552 ⑥ PIN
T552 ⑤ PIN
1100Vp-p (H)
180Vp-p (H)
60Vp-p (H)
180Vp-p (H)
2Vp-p (H)
Q501 BSN274 H DRIVE
R501 56K
R503 1.5K 1/2W
47.7V
3.8V
0V
C502 330P 500V QCY32HK-331MZ
D501 1SS81-T5
C501 OPT
R502 12K
8Vp-p (H)
T501 CE42034-002 H.DRIVE TRANSF
C503 1/160
R504 3.3K 2W OMR QRG029J-332
R505 3.9K 3W OMR QRG029J-392
Q551 2SD2348-LB H OUT
-0.1V
D551 RH3G-C1
C552 .01 1.4KVH MPP QFZ0117-1002S
D552 RU3AM-LFC4
C551 .004 1.4KVH MPP QFZ0117-4001S
C553 .027 400V QFP32GJ-273M
C554 .68 200V MPP QFZ0119-684S
C555 .53 200V MPP QFZ0119-534S
L551 CELL013-003
T551 CE42549-001J1
R553 470 QRD121J-471SY
D553 RGP10J-T3
C556 4.7/250
R552 10K QRG029J-103
C558 560 500V QCY32HK-561AZ
DY01 DEF.YOKE (within CRT)
CNOHV
(V)
(H)
R971 3.3 10W UNFR QRF103J-3R3
R973 1.2K 1/2W
R972 5.6K 1/2W
C986 100/160 QETB2CM-107
C985 100/6.3
142.3V
141.7V
0.3V
Q971 2SA949(Y)C1 B1 PROTECTOR
R974 18K
R975 1.8K
D975 MTZJ7.5(B)-T2
C987 47/25
T451 CE42556-001J1
T452 CE42555-001J1
R455 2.2 1/4W
C452 .039 MY
L451 CE41197-00G
T-B PIN
D451 1SS133-T2
R453 1K
R451 47 1/2W
C451 .01 MY
Q452 2SC2655(Y)-T PIN CUSHION
8V
8.5V
R452 1K
L452 330 CELC058-331Z
D452 ERA81-004-T2
R454 2.2
D453 ERA81-004-T2
Q451 2SC2655(Y)-T PIN CUSHION
MAN PWB ASS' Y
SKA-1001A-H2

CRT SOCKET PWB CIRCUIT DIAGRAM [AV-G29MS / AV-G29MH]

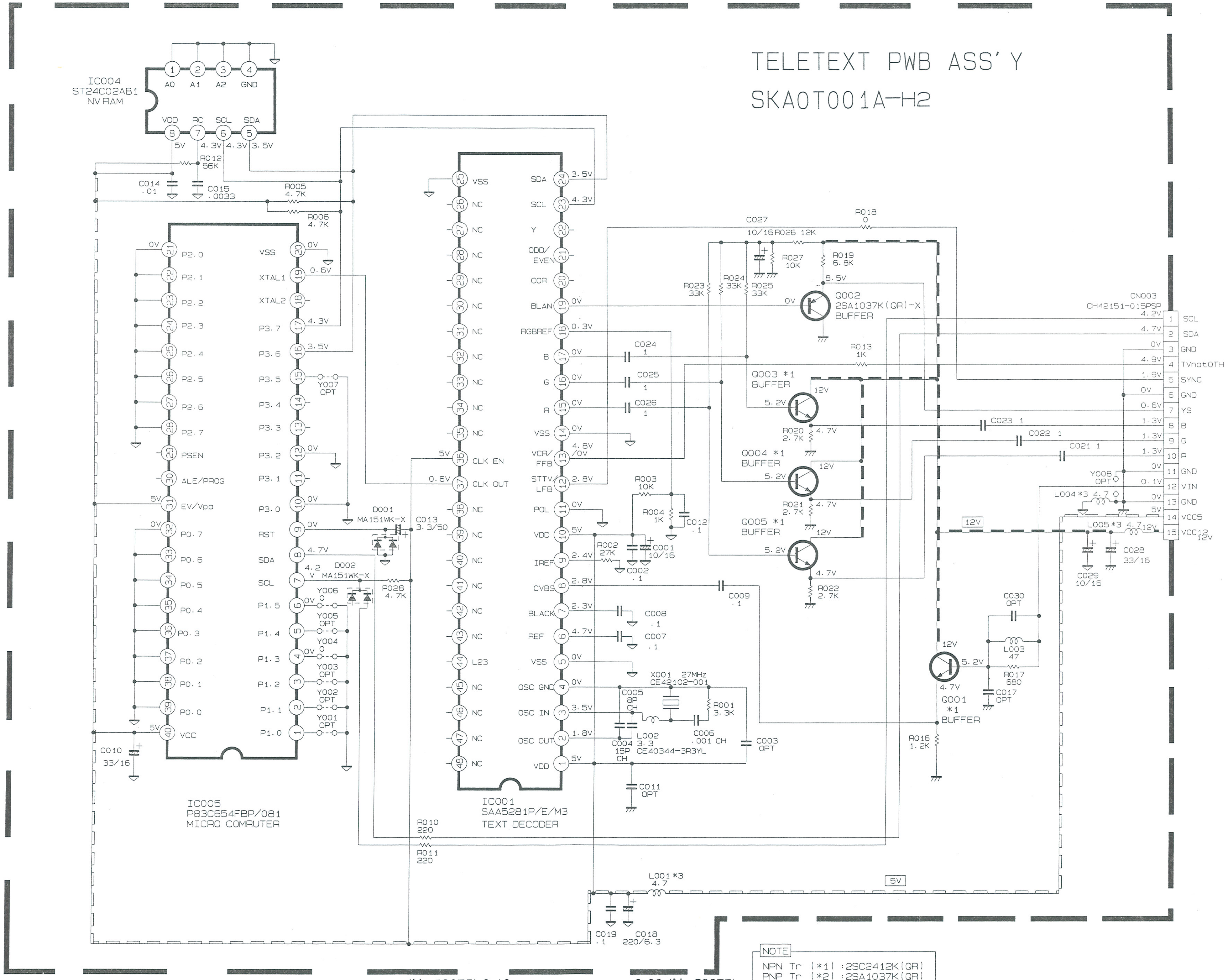
Refer to the following PWB pattern. : CRT SOCKET PWB PATTERN page 2-29 .


CRT SOCKET PWB ASS' Y
SKA-3006A-H2
CN00T
12V
GND
IK
B
G
R
Ys
Y
B2 12V
C104 100/16
D155 *3
D154 *3
D153 *3
D152 *3
Q155 *1 AMP
Q156 *1 AMP
Q157 *2 BUFFER
Q110~Q115 BUFFER
Q203 OPT SW
Q106 2SC4544-C1 B. OUT
Q103 *6 B. OUT
Q105 2SC4544-C1 R. OUT
Q102 *6 R. OUT
Q104 2SC4544-C1 G. OUT
Q101 *6 G. OUT
Q107 OPT BLANKING
Q108 OPT BLANKING
Q109 OPT BLANKING
QVPE805-302H
B CUT OFF
R CUT OFF
G CUT OFF
Q105 180 Vp-p(H)
Q106 180 Vp-p(H)
Q104 150 Vp-p(H)
TP-47B
TP-E
SK001 CRT SOCKET CE42535-001J1
V01 A68ESF002X11
CRT(ITC)
V01 CRT(ITC)
ARRESTER GND
CRT GND
HV
FOCUS 8.5K
SCREEN 710V
QCZ0131-332A
IC201 OPT PULSE GENERATOR
IC202(1/4) OPT PULSE GENERATOR
IC202(3/4) OPT PULSE GENERATOR
IC202(4/4) OPT PULSE GENERATOR
Q204 OPT INVERTER
Q201 OPT INVERTER
Q202 OPT SW
Q154 OPT POWER OFF DET
Q153 OPT VIDEO MUTE
S201 OPT
V. BLK. POS
CN00K OPT
NC
REG/OTH
Ha
50/60
GND
VERT1
VERT2
B1 142.5V
K301 CE41492-001Z
FR330 560 1W.FR QRH017J-561M
Q301 *1 BUFFER
Q302 *2 Y DIFFERENTIAL
Q304 *1 VM AMP
Q305 *1 VM DRIVE
Q306 *2 VM DRIVE
Q303 *1 2SC1906-T VM SWITCH
Q307 2SA1837 VM OUT
Q308 2SC4793 VM OUT
D302 RH1S-T3
D303 RH1S-T3
R329 390 2WA OMR QRG029J-391A
K303 CE41492-001Z
K304 CE41492-001Z
K302 CE41492-001Z
CN00V CH41169-003Y
VM COIL
CN00U CH41169-006Y
B1
NC
HEATER
GND
NC
HB
212V

NOTE	
X : OPEN	PNP Tr (*1): 2SC1740S(QR)
:LOW B	PNP Tr (*6): 2SC1815(YG)
:HIGH B (H)	NPN Tr (*2): 2SA673(C)
	DIODE (*3): 1SS133-T2

TELETEXT PWB CIRCUIT DIAGRAM [AV-G29MS]

Refer to the following PWB pattern. : TELETEXT PWB PATTERN page 2-30 ~ 2-31 .

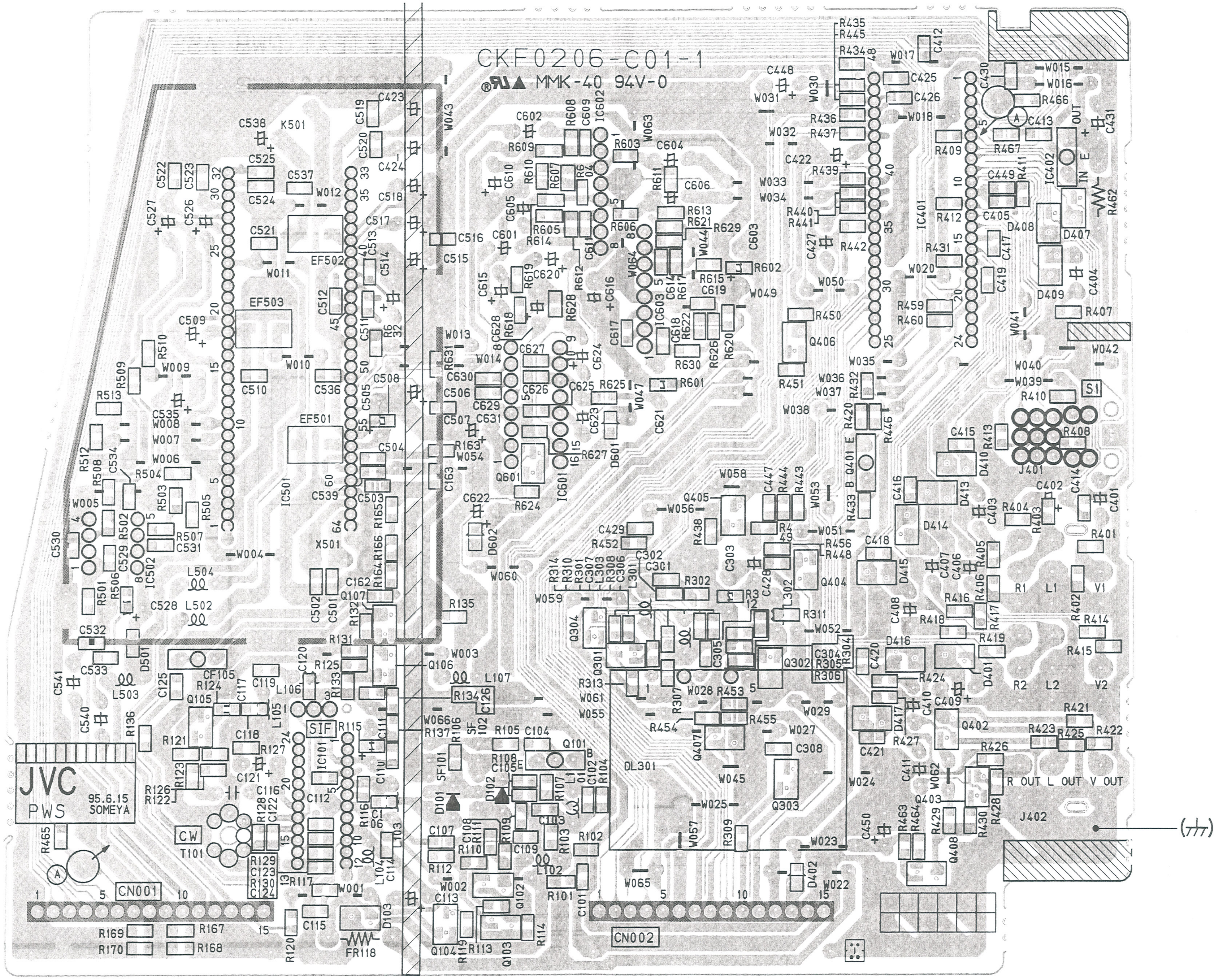

TELETEXT PWB ASS'Y
SKA0T001A-H2
IC004
ST24C02AB1
NV RAM
A0 A1 A2 GND VDD RC SCL SDA
5V 4.3V 4.3V 3.5V
R012 56K
C014 .01
C015 .0033
R005 4.7K
R006 4.7K
IC005
P83C654FBP/081
MICRO COMPUTER
P2.0 P2.1 P2.2 P2.3 P2.4 P2.5 P2.6 P2.7 PSEN ALE/PROG EV/Vpp P0.7 P0.6 P0.5 P0.4 P0.3 P0.2 P0.1 P0.0 VCC
VSS XTAL1 XTAL2 P3.7 P3.6 P3.5 P3.4 P3.3 P3.2 P3.1 P3.0 RST SDA SCL P1.5 P1.4 P1.3 P1.2 P1.1 P1.0
Y007 OPT
Y006 Y005 OPT Y004 Y003 OPT Y002 OPT Y001 OPT
D001 MA151WK-X
D002 MA151WK-X
C013 3.3/50
R028 4.7K
C010 33/16
R010 220
R011 220
IC001
SAA5281P/E/M3
TEXT DECODER
VSS NC CLK EN CLK OUT L23
SDA SCL Y ODD/EVEN COR BLAN RGBREF B G R VSS VCR/FFB STTV/LFB POL VDD IREF CVBS BLACK REF VSS OSC GND OSC IN OSC OUT VDD
C027 10/16
R026 12K
R027 10K
R018 0
R019 6.8K
R023 33K
R024 33K
R025 33K
Q002 2SA1037K(QR)-X BUFFER
R013 1K
C024 1
C025 1
C026 1
Q003 *1 BUFFER
Q004 *1 BUFFER
Q005 *1 BUFFER
R020 2.7K
R021 2.7K
R022 2.7K
R003 10K
R004 1K
C012 .1
R002 27K
C001 10/16
C002 .1
C009 .1
C008 .1
C007 .1
X001 27MHz CE42102-001
C005 8P CH
R001 3.3K
C004 15P CH
L002 3.3 CE40344-3R3YL
C006 .001 CH
C003 OPT
C011 OPT
C023 1
C022 1
C021 1
CN003
CH42151-015PSP
1 SCL 2 SDA 3 GND 4 TVnotOTH 5 SYNC 6 GND 7 YS 8 B 9 G 10 R 11 GND 12 VIN 13 GND 14 VCC5 15 VCC12
Y008 OPT
L004 *3 4.7
L005 *3 4.7
C029 10/16
C028 33/16
12V
C030 OPT
L003 47
R017 680
C017 OPT
Q001 *1 BUFFER
R016 1.2K
L001 *3 4.7
C019 .1
C018 220/6.3
5V

NOTE
NPN Tr (*1) :2SC2412K(QR)
PNP Tr (*2) :2SA1037K(QR)
C COIL (*3) :CE40344-4R7YL

AV A2 NICAM PWB PATTERN [(SKA0A001A-H2) : AV-G29MS / AV-G29MH]

TOP

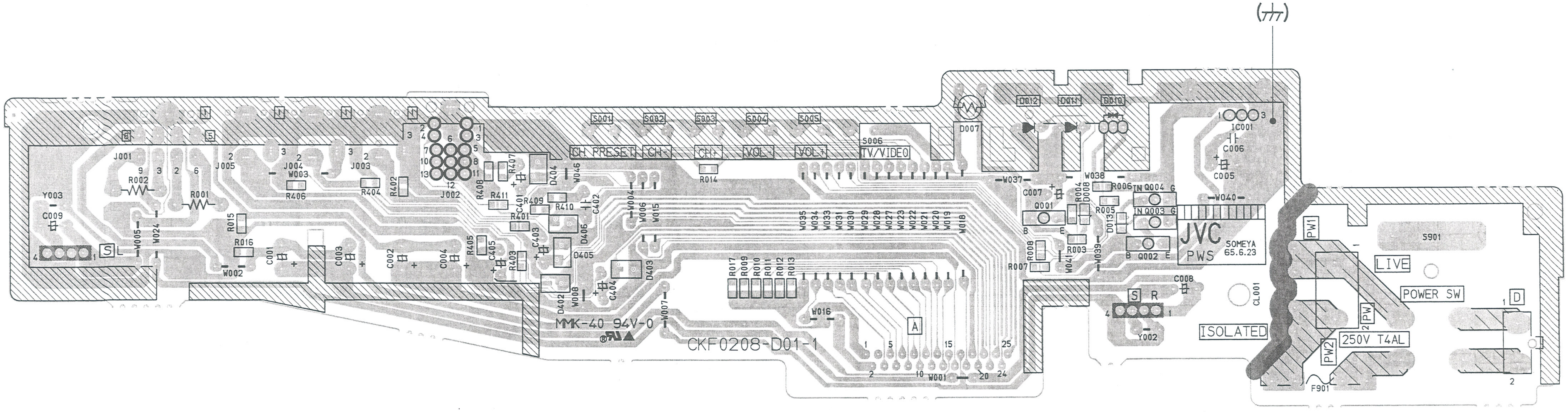
(Magnification Rate 153%)


CKF0206-C01-1
MMK-40 94V-0
JVC
PWS
95.6.15
SOMEYA
IC501
IC502
IC601
IC602
IC603
IC101
IC401
IC402
EF501
EF502
EF503
K501
X501
SIF
CW
T101
CF105
SF101
SF102
DL301
CN001
CN002
J401
J402
S1
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q301
Q302
Q303
Q304
Q401
Q402
Q403
Q404
Q405
Q406
Q407
Q408
Q601
D101
D102
D103
D401
D402
D407
D408
D409
D410
D413
D414
D415
D416
D417
D501
D601
D602
L102
L104
L105
L106
L107
L301
L302
L303
L502
L503
L504
FR118
R OUT
L OUT
V OUT
R1
R2
L1
L2
V1
V2
IN
E
OUT
W001
W002
W003
W004
W005
W006
W007
W008
W009
W010
W011
W012
W013
W014
W015
W016
W017
W018
W020
W022
W023
W024
W025
W027
W028
W029
W030
W031
W032
W033
W034
W035
W036
W037
W038
W039
W040
W041
W042
W043
W044
W045
W047
W049
W050
W051
W052
W053
W054
W055
W056
W057
W058
W059
W060
W061
W062
W063
W064
W065
W066

FRONT CONTROL PWB PATTERN [(SKA-8005A-H2) : AV-G29MS / AV-G29MH]

FRONT

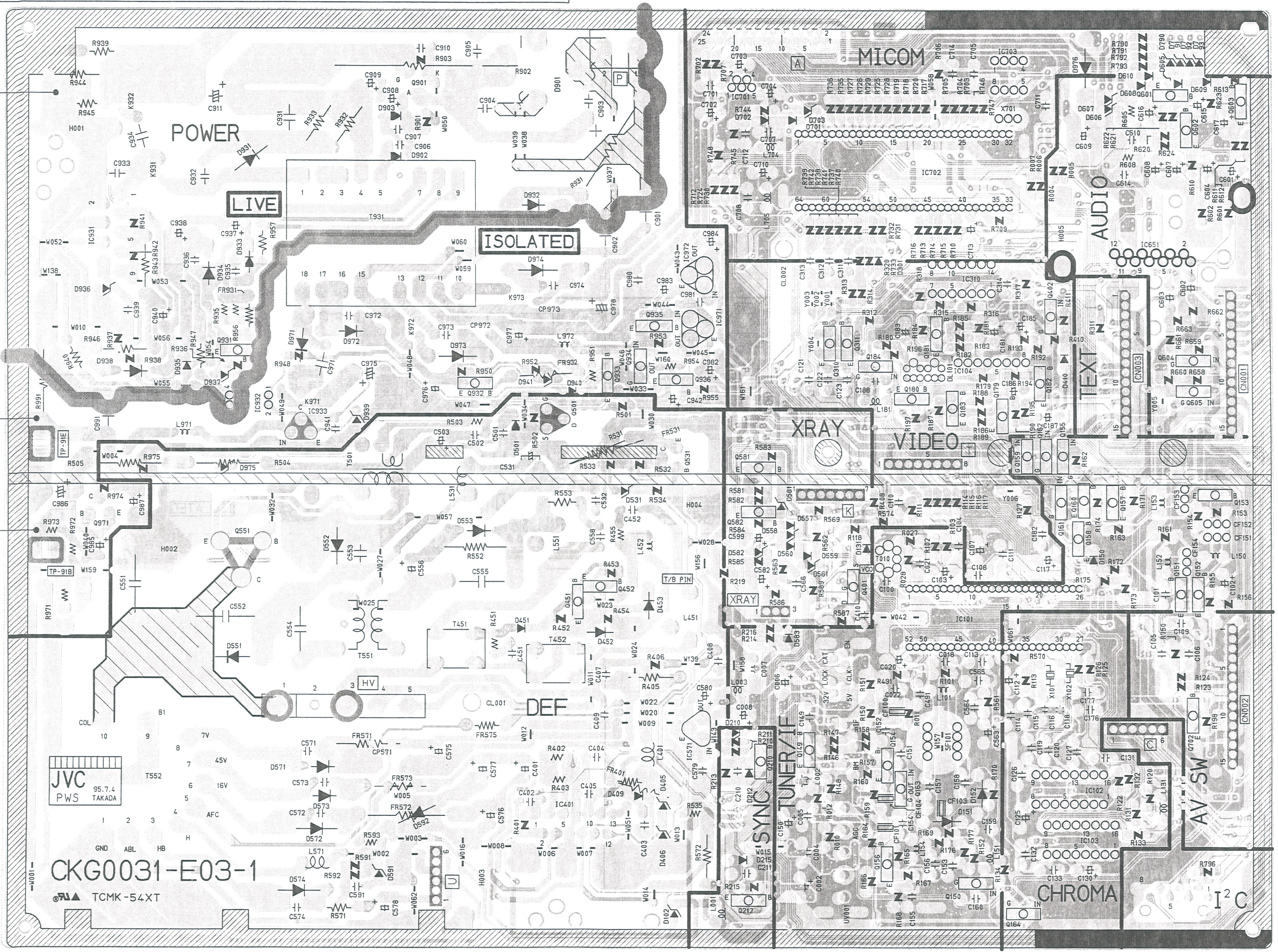
(Magnification Rate 115%)


J001
R002
R001
Y003
C009
W005
W024
S L
J005
J004
W003
R406
J003
R404
R402
J002
R015
R016
W002
C001
C003
C002
C004
R405
C405
R403
R408
R407
R411
R409
R410
R401
C401
C402
C403
D404
W046
D406
D405
D402
W008
C404
D403
W004
W006
W015
W007
CH PRESET
CH-
CH+
VOL-
VOL+
TV/VIDEO
S001
S002
S003
S004
S005
S006
R014
W035
W034
W033
W031
W030
W029
W028
W027
W023
W022
W021
W020
W019
W018
R017
R009
R010
R011
R012
R013
W016
A
W001
MMK-40 94V-0
CKF0208-D01-1
D007
D012
D011
D010
IC001
C006
C005
W037
W038
C007
Q001
R004
D008
R006
Q004
Q003
R005
D013
R008
R003
R007
W041
W039
Q002
W040
JVC
PWS
SOMEYA
65.6.23
C008
S R
Y002
CL001
ISOLATED
PW1
PW2
PW
S901
LIVE
POWER SW
250V T4AL
F901
D

FRONT

MAIN PWB PATTERN [(SKA-1001A-H2) : AV-G29MS / AV-G29MH]

(Magnification Rate 100%)


POWER
LIVE
ISOLATED
MICOM
AUDIO
TEXT
XRAY
VIDEO
DEF
HV
SYNC
TUNER/IF
CHROMA
AV SW
I²C
T/B PIN
TP-91E
TP-91B
JVC
PWS
95.7.4
TAKADA
CKG0031-E03-1
TCMK-54XT

(⊥)

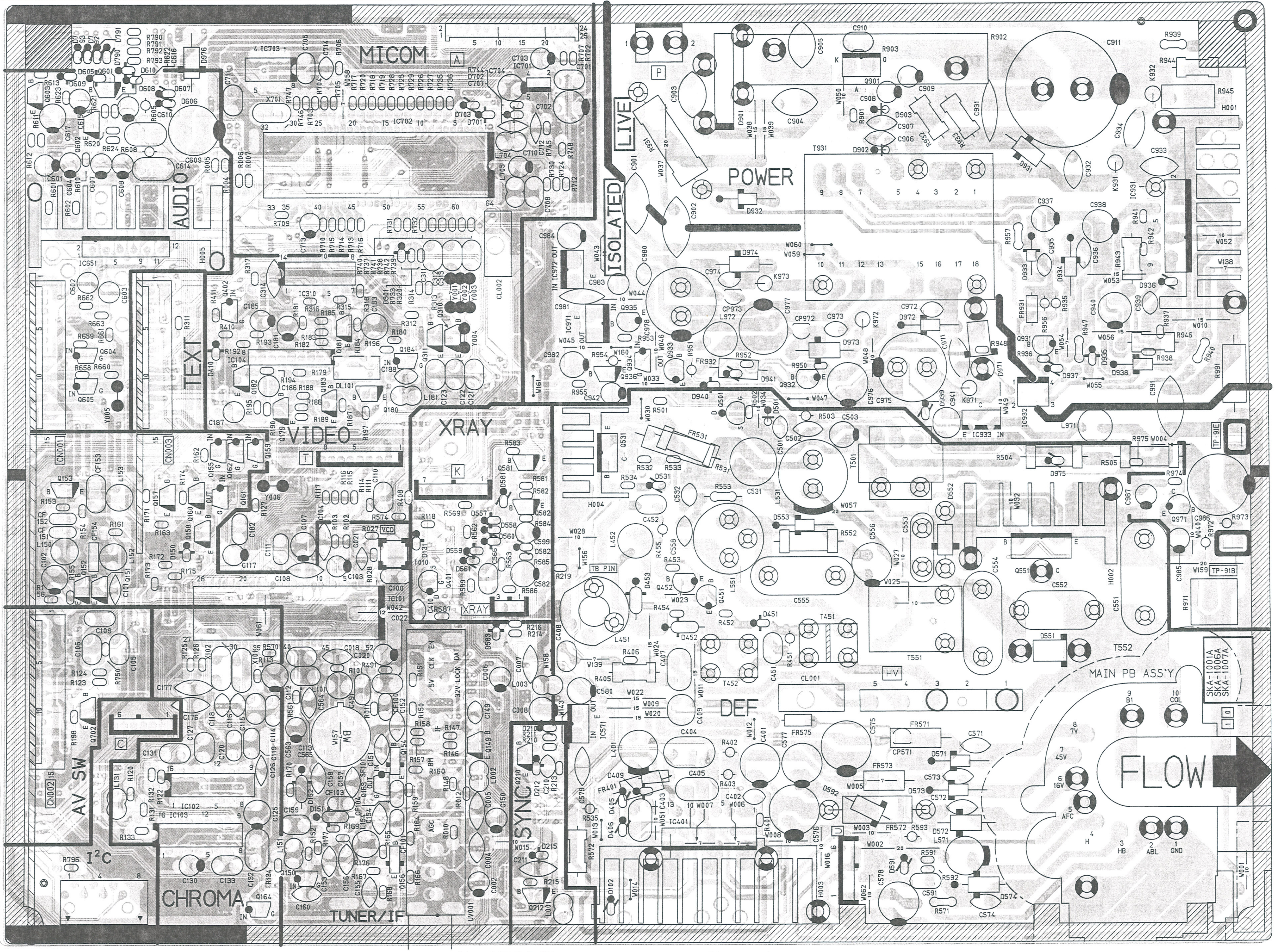
(⏚)

TP-91B
(TP-91)

MAIN PWB PATTERN [(SKA-1001A-H2) : AV-G29MS / AV-G29MH]

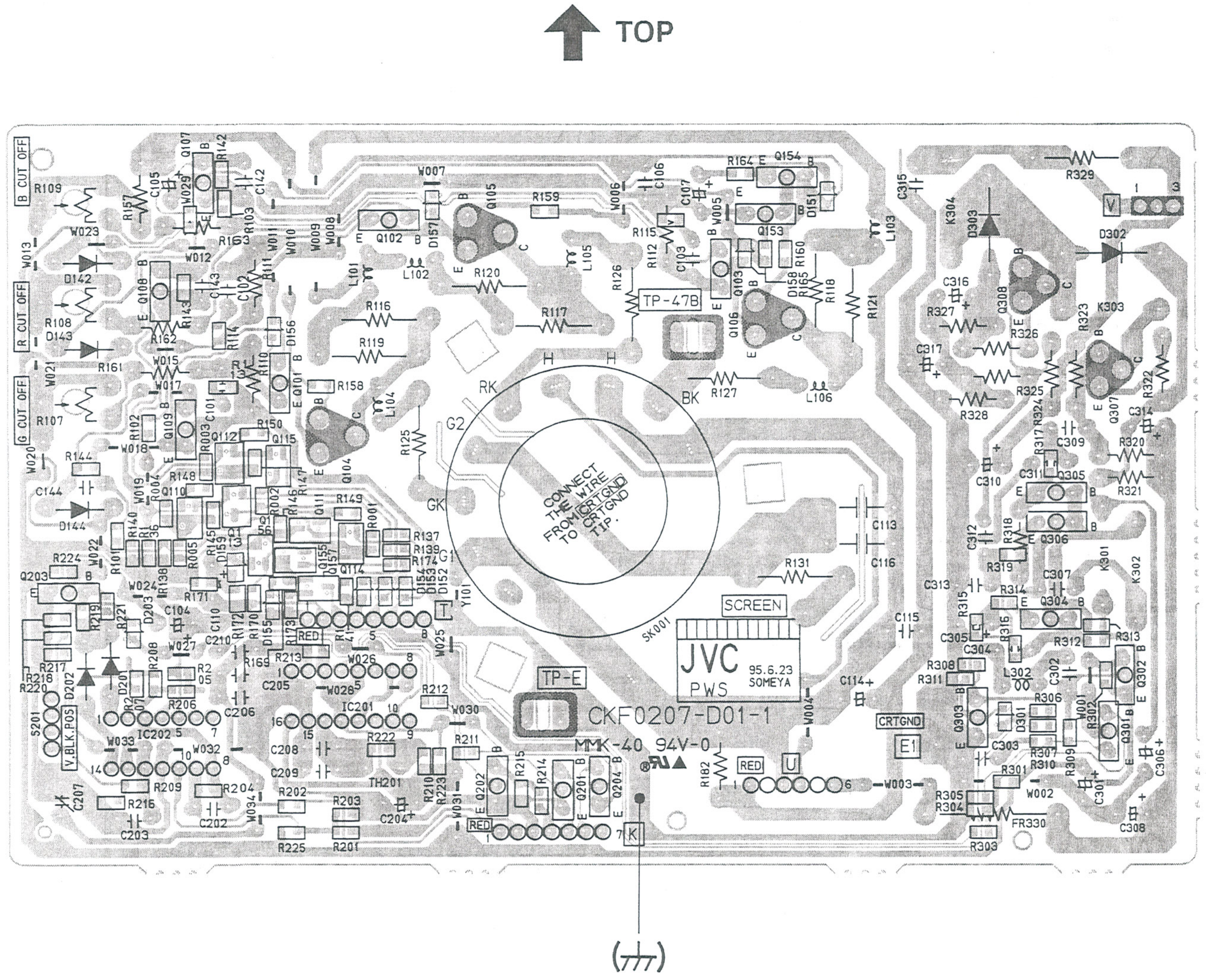
FRONT

(Magnification Rate 100%)


MICOM
AUDIO
TEXT
VIDEO
XRAY
LIVE
ISOLATED
POWER
DEF
AV SW
I²C
CHROMA
TUNER/IF
SYNC
HV
MAIN PB ASS'Y
SKA-1001A
SKA-1006A
SKA-1007A
FLOW
9 B1
10 COL
8 7V
7 45V
6 16V
5 AFC
4 H
3 HB
2 ABL
1 GND

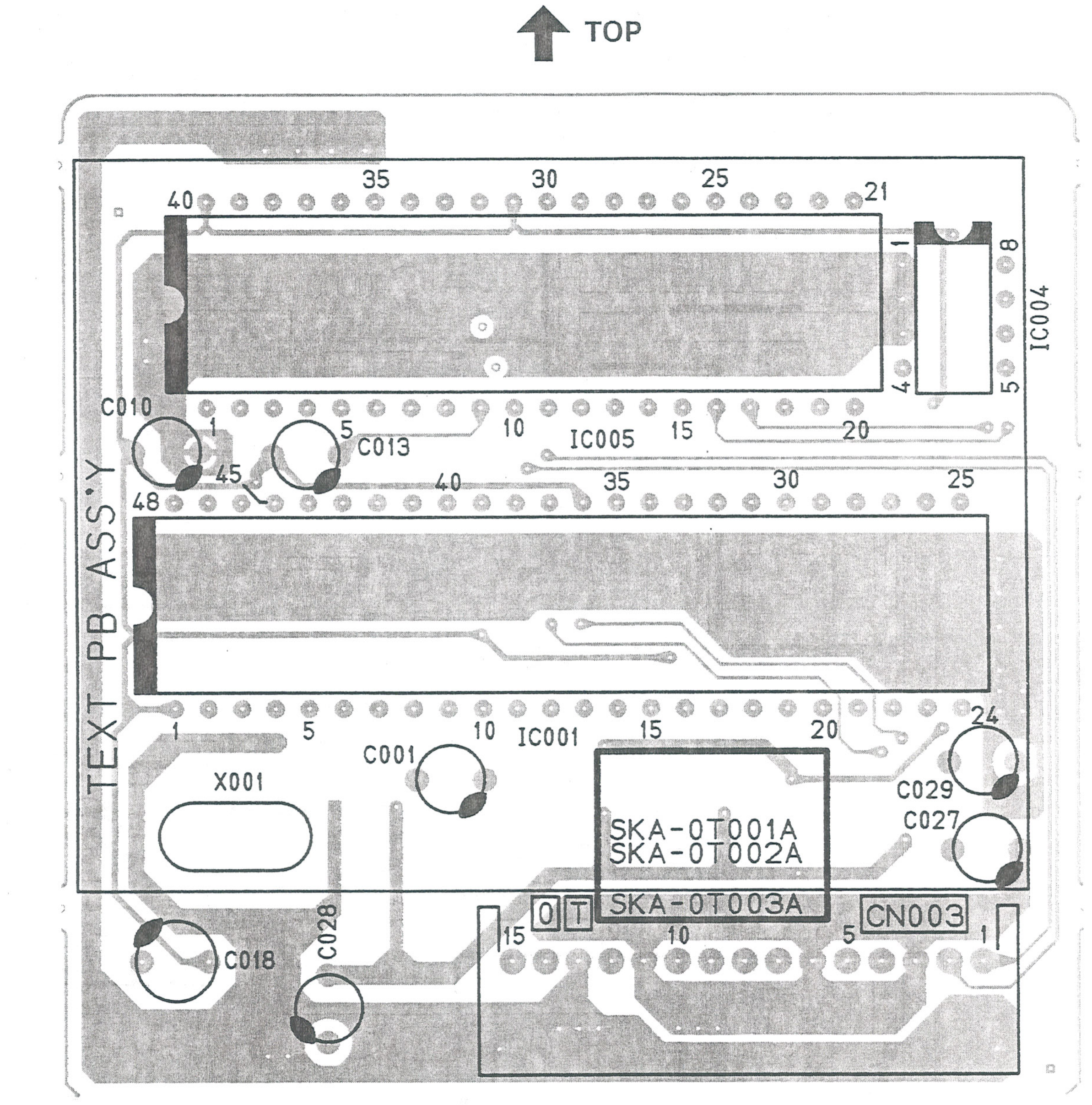
CRT SOCKET PWB PATTERN [(SKA-3006A-H2) : AV-G29MS / AV-G29MH]

(Magnification Rate 97%)


TOP
B CUT OFF
R CUT OFF
G CUT OFF
V.BLK.POS
SCREEN
JVC
PWS
95.6.23
SOMEYA
CKF0207-D01-1
MMK-40 94V-0
TP-E
TP-47B
CRTGND
CONNECT THE WIRE FROM CRT GND TO TIP.
RK
G2
GK
BK
H
SK001
IC201
IC202
TH201
RED
U
K
E1

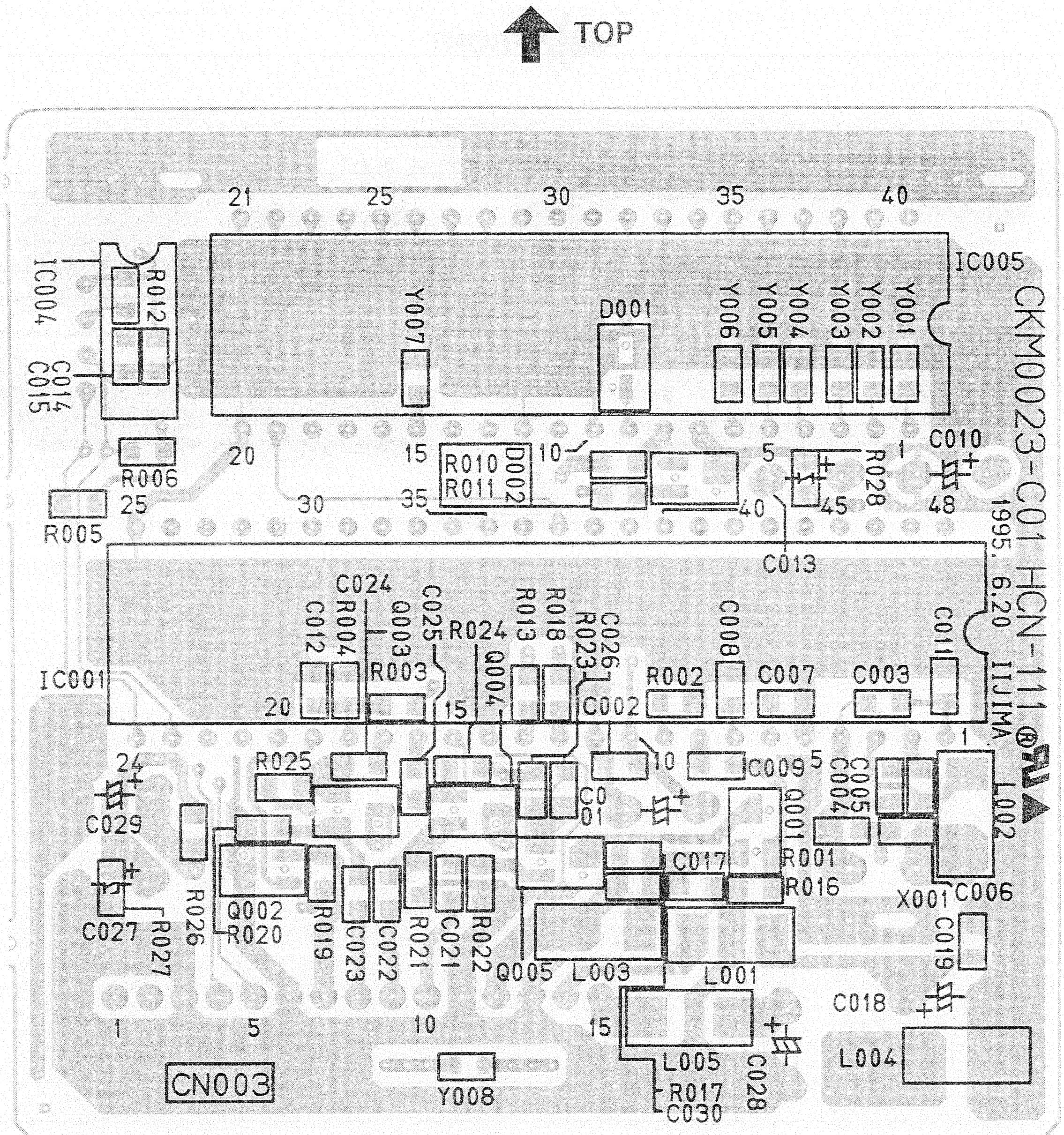
TELETEXT PWB PATTERN [(SKA0T001A-H2) : AV-G29MS]

(Magnification Rate 200%)


TOP
TEXT PB ASS'Y
IC005
IC001
IC004
X001
C001
C010
C013
C018
C027
C028
C029
CN003
SKA-0T001A
SKA-0T002A
SKA-0T003A
0
T

TELETEXT PWB PATTERN [(SKA0T001A-H2) : AV-G29MS]

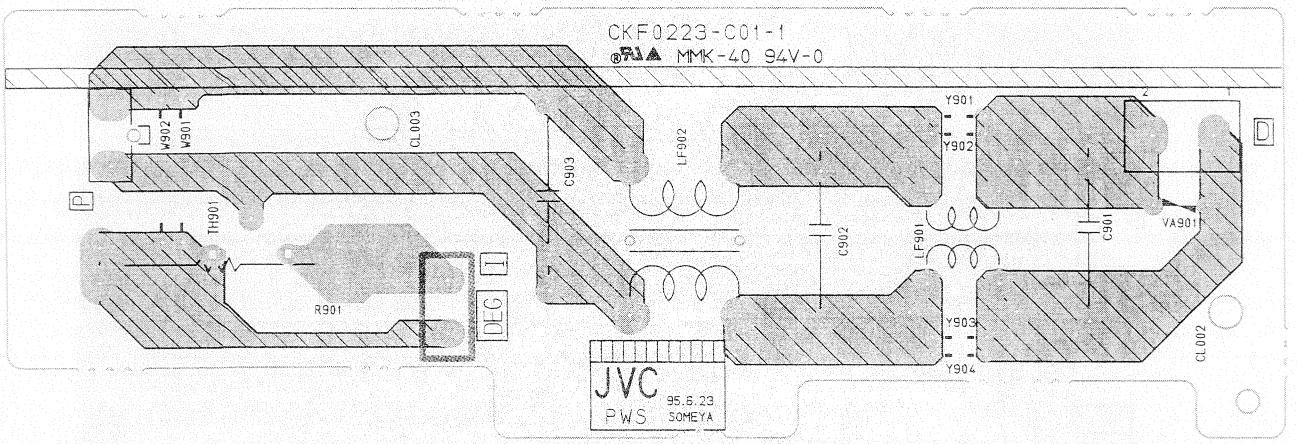
(Magnification Rate 200%)


TOP
21
25
30
35
40
IC005
IC004
R012
C014
C015
Y007
D001
Y006
Y005
Y004
Y003
Y002
Y001
CKM0023-C01 HCN-111
1995. 6.20
IIJIMA
20
15
10
5
1
C010
R010
R011
D002
R028
R006
R005
25
30
35
40
45
48
C013
IC001
C024
C012
R004
Q003
C025
R024
R013
R018
R023
C026
C008
C011
R003
Q004
R002
C007
C003
C002
R025
24
C029
C0
01
C009
C005
C004
Q001
L002
R026
C017
R001
R016
X001
C006
C027
R027
Q002
R020
R019
C023
C022
R021
C021
R022
Q005
L003
L001
C019
C018
L004
L005
C028
R017
C030
Y008
CN003

LINE FILTER PWB PATTERN [(SKA-9341A-H2) : AV-G29MS / AV-G29MH]

(Magnification Rate 97%)

FRONT


CKF0223-C01-1
MMK-40 94V-0
W902
W901
CL003
C903
LF902
Y901
Y902
2
1
D
P
TH901
R901
DEG
I
C902
LF901
C901
VA901
Y903
Y904
CL002
JVC
PWS
95.6.23
SOMEYA

2654

JVC Manual Change Information

SERVICE MANUAL

COLOUR TELEVISION

AV-G29MS
AV-G29MH

BASIC CHASSIS
KA

Since some details of the AV-G29MS / AV-G29MH service manual (No.50975, Aug. 1995) were changed, we are informing you of these changes and of the new descriptions.

1. CHANGED ITEMS

VIDEO/CHROMA CIRCUIT ADJUSTMENT (Page 15)

BEFORE CHANGE

Setting (adjustment) item \ Colour system	Variable range	PAL	SECAM	NTSC 3.58	NTSC 4.43
10. SHARP	-8 ~ +6	-1	←	←	←

⬇

AFTER CHANGE

Setting (adjustment) item \ Colour system	Variable range	PAL	SECAM	NTSC 3.58	NTSC 4.43
10. SHARP	-8 ~ +6	-3	←	←	←

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Mar.1996